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RELEASE OF INTRA-AGENCY DOCUMENTS

July 2, 1971

Pursuant to the "Order Concerning Ex Parte Communications and Authorizing Release of Intra-Agency Documents" and the authority which has been delegated to me thereunder, I designate the following intra-agency memoranda to be placed in the public file in the consolidated proceedings which bear the docket numbers AR61-2 and AR69-1:

Exhibit A. Memorandum to Chairman Nassikas from Chief, Office of Economics (Wald), dated February 12, 1970, subject: Comparison of Form 15 and AGA Statistics for Gas Reserves.

Exhibit B. Memorandum to Chairman Nassikas from Producer Division, Bureau of Natural Gas (McManus) dated February 13, 1970, Reliability of Proven Reserve Estimates.

Exhibit C. Memorandum to the General Counsel (Gooch) from Chief, Office of Economics (Wald) dated February 19, 1970, subject: Questions regarding AGA reserves data.

Exhibit D. Memorandum to Commission from Chief Econometrician, Office of Economics (Khazzoom) dated February 19, 1970, subject: Issues in Gas Rate Determination (referred to in item C, supra).

Exhibit E. Memorandum to Commission and Office Heads from Chief, Bureau of Natural Gas (Joyce), subject: Meeting on Gas Reserves Estimation Methods.

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Exhibit F. Memorandum to Chief, Bureau of Natural Gas from Chief, Office of Economics dated March 11, 1970, Meeting with AGA Reserves Committee.

Exhibit G. Memorandum to Commission from General Counsel (Gooch) dated March 12, 1970, subject: Mr. Joyce's meeting on Gas Reserves Estimation Methods with Mr. Jacobs.

Exhibit H. Memorandum to Mr. Mattingly, Office of General Counsel from Chief, Office of Economics (Wald) dated March 13, 1970, subject: Comments on Questions for AGA, copy to Gooch.

Exhibit I. Memorandum to Mr. Mattingly from F. W. Lawrence dated March 16, 1970, questions for Mr. Jacobs of AGA.

Exhibit J. Memorandum to Mr. Mattingly from Assistant Chief, Office of Economics (Schwartz) dated March 16, 1970, Comments Concerning Questions for Mr. Jacobs of AGA.

Exhibit K. Memorandum to Mr. Wald from Mr. Gooch dated March 18, 1970.

Exhibit L. Memorandum to Mr. Gooch from Mr. Wald dated March 18, 1970.

Exhibit M. Memorandum to General Counsel (Gooch) from Chief, Office of Economics dated March 19, 1970, Miscellaneous Observations on Arrangements for AGA Witness on Reserves Estimates.

Exhibit N. Memorandum to General Counsel (Gooch) from Chief, Office of Economics (Wald) dated March 23, 1970 subject: Propriety of Pre-hearing Off-the-Record Meeting with AGA Witness in AR69-1.

Exhibit O. Memorandum to Mr. Wald from Mr. Gooch dated March 25, 1970.

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Exhibit P. Memorandum to Commission from Chief, Bureau of Natural Gas dated March 27, 1970, Meeting on Gas Reserves Estimation Methods.

Exhibit Q. Memorandum to Chief, Office of Economics (Wald) from Ralph A. Johnson dated November 10, 1970, subject: Comparison of 1969 AGA Reserves Estimates with Staff Reserve Data for South Louisiana (AR69-1).

Exhibit R. Memorandum to Chairman Nassikas from Chief, Office of Economics (Wald) dated November 13, 1970, subject: Conflicting Estimates of Gas Reserves for Offshore Louisiana (Federal Domain).

Exhibit S. Memorandum to Chairman Nassikas from Chief, Bureau of Natural Gas (Joyce) dated November 19, 1970, subject: Docket No. AR-69-1—Comparison of Offshore Federal Domain Reserves as Reported in Staff Exhibit No. 31-A and as Estimated by AGA.

Exhibit T. Memorandum to Chairman Nassikas from General Counsel (Gooch) dated November 19, 1970, Testimony on Gas Reserves Estimates in Docket No. AR69-1.

Exhibit U. Memorandum to Mr. Wakefield from Haskell P. Wald dated December 1, 1970.

Exhibit V. Memorandum to Chairman Nassikas from General Counsel (Gooch), Chief, Bureau of Natural Gas (Joyce), and Chief, Office of Economics (Wald) dated December 16, 1970, subject: Comparison of Offshore Southern Louisiana Reserve Estimates.

Exhibit W. Memorandum to General Counsel (Gooch) from Chief, Office of Economics (Wald) dated March 23, 1971, Staff Brief, AR61-2 and AR69-1.

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Exhibit X. Memorandum to Chief, Office of Economics (Wald) from General Counsel (Gooch) dated March 26, 1971, subject: Staff's Brief, AR61-2 and AR69-1; relating to memo dated March 23, 1971.

Exhibit Y. Memorandum to General Counsel (Gooch) from Chief, Office of Economics (Wald) dated March 26, 1971, subject: Relating to General Counsel's memo of March 26, 1971.

Exhibit Z. Memorandum to Mr. Mattingly from Assistant Chief, Office of Economics (Schwartz) dated April 2, 1971, subject: Review of Draft Brief in AR69-1.

Exhibit AA. Memorandum to David Schwartz from Richard V. Mattingly dated April 9, 1971, subject: Staff Brief in AR61-2 and AR69-1.

Exhibit BB. Memorandum to Mr. Mattingly from Chief, Office of Economics (Wald) dated April 20, 1971, Comment on Initial Staff Brief, AR61-2 and AR69-1.

Exhibit CC. Memorandum to Mr. Mattingly from Office of Economics dated April 20, 1971, Response to Objections to the Econometric Model.

Exhibit DD. Memorandum to Phyllis H. Kline from Mr. Mattingly dated April 21, 1971, subject: The Econometric Model.

Exhibit EE. Memorandum to Chief, Office of Economics (Wald) from Mr. Mattingly dated April 21, 1971, subject: Southern Louisiana Brief.

Exhibit FF. Memorandum to Mr. Mattingly from Assistant Chief, Office of Economics (Schwartz) dated April 30, 1971, Comments Concerning AR69-1 Reply Brief.

Exhibit GG. Memorandum to Messrs. Gooch and Joyce from Assistant Chief, Office of Economics (Schwartz) dated May 14, 1971, transmitting alternatives A, B, and C to errata of reply brief.

KENNETH F. PLUMB
Secretary

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EXHIBIT A

UNITED STATES GOVERNMENT

MEMORANDUM

Date: February 12, 1970

To: Chairman Nassikas

FROM: Chief, Office of Economics

SUBJECT: Comparison of Form 15 and AGA Statistics for Gas Reserves

We have made a quick check of the consistency of the reserves data reported to FPC on Form 15 and the reserves data published by AGA. Our results are summarized below.

The trends of the two series over the 1963-1968 period are broadly similar, in that they both advance year-by-year until 1968 when they both declined. The annual changes, however, can hardly be said to match each other, as shown below:

	Increase (or decrease) over previous year—Million Mcf	
	AGA (Revised)[1]	Form 15
1964	4,698	453
1965	5,282	2,255
1966	2,208	3,624
1967	3,623	3,694
1968	(6,046)	(3,392)

[1] AGA total excluding reserves in Alaska, California, Illinois, Michigan, and Indiana. Reserves in these states are not reported in Form 15.

In the first two years, 1964 and 1965, the increases reported in Form 15 were much smaller than the increases reported by AGA. In the next two years, Form 15 showed larger increases in reserves than the AGA data, while in 1968 the decline shown in Form 15 was much smaller than the decline reported by AGA. The AGA total of proved reserves at the end of 1968 was lower than at the end of 1965, but the Form 15 total was 2 percent (or 3.9 billion Mcf) higher.

The differences noted above may be entirely consistent with 100 percent accuracy in the two series, since the series measure different quantities. Form 15 applies to

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dedicated reserves, defined as "remaining recoverable salable gas reserves committed to, controlled by, or possessed by the reporting pipeline company." Form 15 reserves are those reserves covered by FPC certificate authorizations.[1] The AGA estimates are for *proved reserves*, which presumably include the dedicated reserves pledged for FPC certificates, plus the reserves underlying intrastate contracts, plus all other economically recoverable reserves in proven acreage. There is of course no reason why the two annual series should always move together or maintain a constant relationship to each other, since the interstate pipelines may succeed in contracting for a very high proportion of new reserve additions (or uncommitted reserves) in one year and a low proportion in another year.

We probably have reliable information on the reserves available to support the certificated volumes of inter-

[1] Warranted reserves (i.e., reserves guaranteed by contract but not supported by the dedication of specific proved sources of supply), are also included in Form 15.

state pipeline companies, and we are therefore able to speak confidently about the adequacy of these reserves to serve the existing market, but our knowledge of uncommitted volumes is limited to the information we can glean from the more comprehensive AGA statistics which we have no way of corroborating. FPC auditing of the approximately 70 percent of the AGA total which is reported on Form 15 tells us nothing about the reliability of the estimates for the remaining 30 percent.

We have also compared the AGA and Form 15 reports area by area for 1964 and 1968, using the published geographical breakdowns. This comparison revealed some surprisingly large differences between the two sets of estimates. The principal ones are listed below:

1. In the *San Juan Basin Area*, the Form 15 reserves are about 40 percent larger than the volumes reported by AGA. In *Texas District 8* and in *Wyoming*, the Form 15 reserves are also appreciably larger than the corresponding AGA estimates. If the both estimates rely on the same economic and geologic assumptions—apparently they do not—the Form 15 data should never exceed the AGA estimates unless there are reporting errors.

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2. The Form 15 data provide very low coverage—35 percent or less—in several parts of Texas. The size of the Form 15 "sample" is only 20 percent of the AGA estimate in *District 3*, 30 percent in *District 6*, and 35 percent in *District 4*.

3. Between 1964 and 1968, the changes reported by AGA and Form 15 were in opposite directions in several areas. AGA reports a decline of 1.4 billion Mcf in *Oklahoma* from 1964 to 1968, while Form 15 shows an

increase of 0.9 billion Mcf. On the other hand, in *Texas District 4* AGA reports an increase of 1.6 billion Mcf during this period and Form 15 shows a decrease of 0.4 billion Mcf. There are other areas where the reported changes diverge. On the surface, large divergences of this sort are suspect, although it is always possible that they actually reflect major shifts in the relative holdings of interstate pipelines and others.

4. In several areas where the AGA and Form 15 estimates move in the same direction from 1964 to 1968, the magnitudes of the increases or decreases are surprisingly wide apart. For example:

	Change, 1964 to 1968 (Billion Mcf)	
Area	AGA	Form 15
Kansas	—2.8	—1.3
North Louisiana	—0.6	—1.3
South Louisiana	+9.5	+6.2
Texas District 8	+2.2	+9.1

These results of our AGA-Form 15 statistical comparisons are not necessarily indicative of conflicting estimates, but they serve to illustrate how difficult it is to use the data from one source as a check on the accuracy of the data from the other source.

/s/ Haskell P. Wald
HASKELL P. WALD

cc: General Counsel
Chief, BNG
Mr. Goldstein

OEC
HPW/skp

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EXHIBIT B

February 13, 1970

MEMORANDUM TO: The Chairman

FROM: Producer Division, Bureau of Natural Gas

SUBJECT: Reliability of Proven Reserve Estimates

It is believed the reliability of gas reserve estimates for any specific reservoir or field initially is suspect. As the field or reservoir is more fully developed by additional drilling and production proceeds, the reserve estimates are revised on the basis of such additional information and are much closer to the ultimate recoverable reserves. However, even after considerable production experience, unforeseen happenings such as failure of wells or an entire reservoir could make the estimate erroneous.

In assembling a total of reserve estimates, such as the AGA figures, the incipient initial unreliability of the individual estimates are of course reflected in the total. AGA recognizes this and by its use of revisions from year to year corrects, to a considerable degree, the first estimate errors. Thus, in the AGA reserve estimate series, a particular year (especially the latest) may be off.

The value of the AGA reserve estimates is that it is a statistical series compiled on a fairly consistent basis yearly and can be reliable when used as a trend or guideline. Thus, a reversal from the past in an aspect of the series such as the ratio of yearly findings exceeding

yearly production if confirmed in the subsequent year with production exceeding estimated findings appears to be a reliable signal that additional exploratory effort is needed to enhance the existing gas supply.

Reliability of Individual Field Reserve Estimates

An example of disparity in initial recoverable reserve estimates is extracted from the Commission's Opinion No. 351 in the CATCO producer case. From 27 FPC 107, the following excerpt is taken.

MMcf at 14.73 psia	CATCO	Tennessee	Examiner[1]
Initial recoverable reserves	711,017	1,322,921	1,305,315
Recoverable reserves as of Jan. 1, 1960	650,065	1,261,969	1,244,363
Salable reserves as of Jan. 1, 1960	642,660	1,245,410	1,228,195

[13,409]

The record shows that the major differences between CATCO and Tennessee relate to net pay (thickness of gas bearing formations), areal extent of the reservoirs, porosity values, and connate water content. In important instances, there were unreconcilable differences between the exports for CATCO and Tennessee, and the staff in its brief contended that the recoverable gas reserves of the four fields cannot be determined from the facts and testimony submitted by the parties. The staff, however, advocated using Tennessee's higher estimate to avoid injuring the public. On our part, the record does not permit us to arrive at a definite conclusion with respect to these reserves. . . ."

[1] The examiner admitted the experts' testimony conflicted, but after a detailed analysis selected the factors he thought better supported and derived his estimated reserve figure. 29 FPC 133.

The Ship Shoal Block 28 Field Reserve Estimate

One of the most glaring miscalculations of initial reserve estimates occurred in connection with Transco's purchase of gas from several producers from offshore Louisiana in the Block 28 Ship Shoal Field, Transco's certificate application was in Docket No. G-16603. The original recoverable reserve estimate in 1959 was 202,050 MMcf and Transco's contracts with the producers had take-or-pay provisions based upon a 1 to 8030 ratio of recoverable reserves.[2] In 1960, the recoverable reserve estimate was 278,711 MMcf and in 1961, the estimate was 795,272 MMcf. In 1963, after addition of a deeper zone in 1961, the original recoverable reserve estimate had increased to 1,295,719 MMcf, a five-fold increase over the original estimate. This rapid increase in recoverable reserves, combined with other factors caused Transco to go into a large gas prepayment position (in the order of $30 million but reduced to $16 million at the end of 1968).

The Rayne Field In-Place Sale Reserve Estimates

Opinion No. 322 (21 FPC 865) states the original recoverable reserve estimates for Rayne Field in 1959 were 988,771,000 Mcf and cites evidence of additional reserves in untested sands.

In Opinion No. 378 (29 FPC 251), Texas Eastern, the in-place purchaser, had increased its holding from approximately 79% to 81.5% and the reserve estimate was 1,021,329,000 Mcf.

After approximately ten years of production, in Opinion No. 565, the original recoverable reserve estimate

[2] Take-or-pay provisions were later amended to be based upon a 1 to 7300 ratio and in some contracts on a definite minimum quantity. Make-up time was also extended and is now ten years.

used was 974,067,000 Mcf and was not contested in the proceedings. The figure was used principally to establish a rate of take for the producers.

[13,410]

The reserve estimates in this case were fairly consistent throughout and the original estimate in 1959 was apparently a good one.

Summary

Producer Division concludes that certainly initial reserve estimates are not necessarily reliable for concluding a gas supply shortage exists, but that a statistical series, such as the AGA reserves studies consistently compiled over a period of years and revised as additional information is obtained, *is reliable* as a ..... *or trend* to alert the Commission and the industry of a gas supply problem. This is especially true if the first signal, i.e., excess of production over findings is confirmed in a second year.

/s/ Edward M. McManus
EDWARD M. MCMANUS
Chief, Producer Division

[13,411]

EXHIBIT C

UNITED STATES GOVERNMENT

MEMORANDUM

Date: February 19, 1970

TO: The General Counsel

FROM: Chief, Office of Economics

SUBJECT: Questions regarding AGA reserves data

Mr. Forquer asked us to submit a list of questions for discussion with the AGA Committee on Natural Gas Reserves. The following cover the more obvious questions which have concerned us for some time:

1. We are concerned over the apparent lack of adequate checks on the statistical reporting operations. A memorandum being distributed by Dr. Khazzoom to the Commission calls attention to a large reporting error in the reserves data for 1967. Because of this error, the 1967-1968 decline in reserves is overstated by 1.3 billion Mcf. If the Committee followed standard statistical procedure, they would have issued an errata sheet; instead, they adjusted for the error by reporting it as a negative revision in 1968. We would like to know whether there have been similar reporting errors of such large magnitude in the past. Would it be feasible to publish a revised historical series adjusted for all reporting errors? It should be obvious that our economists cannot make reliable studies of supply-price responses if the basic data are distorted by reporting errors.

2. We have several questions concerning the "revisions" category of reserve additions. It is a "catch-all"

category including, for example, reporting errors such as the one mentioned above. It also includes reclassifications of gas and oil wells. In the case of some sizable negative revisions for associated and dissolved gas, we have noticed that they were not accompanied by equivalent revisions in oil reserves. We would ordinarily expect both types of revisions to be in the same direction. We believe that the Committee carries a responsibility to identify the sources of major revisions so that the analyst can make appropriate allowances in his interpretations of the data. Studying the year-to-year behavior of revisions, we suspect that the revisions are not the result of

a continuing reappraisal of the estimates, but may instead be made sporadically depending upon when the estimators decide to re-examine the basic data. Thus, it is possible that the need for a revision may have been appreciated several years before the revision is reflected in the reported statistics. We wonder whether the Committee members are instructed to report revisions promptly, or whether they have some freedom in accumulating the revisions until the amount is large. Also, do they make revisions for all areas every year, or do they look at one area one year and another area next year?

3. The problem of "expendable holes" in the offshore area raises an interesting question. We understand that these wells are plugged even though commercial production is possible and that they are not counted as successful wells. We would like to know whether the discoveries from these "expendable holes" are included in proved reserves.

4. Is it possible for the AGA Committee to provide a breakdown of proved reserves between reserves dedi-

cated to interstate pipelines and all other? Such a breakdown would facilitate comparison with our Form 15 reports. (It would also be very useful to include a category for reserves committed to the intrastate market and to direct industrial customers, but we may be going too far if we ask for such detail.)

5. The economic assumptions underlying the AGA reserve estimates have never been spelled out. The AGA Committee speaks of quantities recoverable "under existing economic and opearting conditions" without indicating whether their estimates are tied to the prevailing price level for natural gas. Several of us have questioned AGA representatives about a possible change in their estimate of proved reserves if FPC's ceiling prices were raised. The answer given to us is that a price change would not have any effect on the estimate. We cannot make any sense out of such an answer unless the Committee's reference to "economic conditions" does not mean anything. Each rise in field prices should bring

[13,413]

an upward adjustment in the AGA estimate of recoverable reserves. When the price is changed, the Committee should re-examine its previous estimates and add in those gas volumes which had been excluded because they were uneconomic to produce but which can now be produced at a profit. If our analysis is wrong, we need a more rational explanation from the AGA Committee than has been offered in the past.

6. We believe that the AGA Committee is in a position to provide much more useful information than they are now publishing. Apart from the breakdowns and explanatory data discussed above, the Committee should be able to report a "probable" category which would be in addition to proved reserves. The estimation of proved

reserves automatically carries with it some knowledge of reserves which are not yet "proved up." We understand that some pipeline financing is based on "probable reserves" which do not qualify for the proved reserves category. It would thus seem that, with a little more effort, the Committee could relax its restricted definition of proved reserves and provide the public with another piece of information useful for analyzing the gas supply situation.

/s/ Haskell P. Wald
HASKELL P. WALD

OEC
HPW:lmv
2-19-70
cc: Mr. Joyce
Mr. Forquer
Mr. Schwartz
Dr. Khazzoom

[13,414]

EXHIBIT D

Date: February 19, 1970

MEMORANDUM TO: The Commission

FROM : Chief Econometrician
Office of Economics

SUBJECT : Issues in Gas Rate Determination

The attached is the first in a series of three papers on the subject. The second paper deals with the use of historical cost in determining the ceiling price for new gas, and the implication the procedure has on future levels of gas supply. The third is a proposal for an alternative structure for the ceiling price of natural gas.

/s/ J. Daniel Khazzoom
J. DANIEL KHAZZOOM

OEC
JDK/bjb
cc: Commission Distribution

[13,415]

February 16, 1970

MEMORANDUM TO: The Commission

FROM : Chief Econometrician
Office of Economics

SUBJECT : The Nature of the Gas Supply Data

In the final analysis, the question of whether or not an acute gas shortage does exist will have to be resolved by reference to empirical evidence. At present, the only evidence available—apart from the Commission's Form 15 reports—is the gas supply data published by the Committee on Natural Gas Reserves of the A.G.A. Many have expressed misgivings about the unknown nature of these data. This has been particularly true since the publication of the 1968 reserves estimates. Gross additions to gas reserves fell by 8.1 billion Mcf. About half of this amount (4.4 billion Mcf) occurred in the revisions of associated-dissolved gas.[1]

At present relatively little is known about the factors behind this enormous drop. Some of what is known raises several questions in one's mind about the nature of the reserve estimates. There are also implications to the quality of the data in past years.

In all fairness, we cannot expect any estimates to be robust enough to score 100% on every test. But a score *commensurate with the purpose for which the data are used* is and must be required. The more is at stake, the higher are the standards the data are required to meet.

If so little is known about the nature of the reserves data and if so many reservations have been expressed about them, would it not be wise to require them to pass

[1] A.G.A., *Reserves of Crude Oil, National Gas Liquids, and Natural Gas in the U.S. and Canada as of December 31, 1968*, Table VII, p. 126, and Table IX, p. 127.

the scrutiny tests that any other evidence is required to pass before they are accepted for important policy decisions. I

[13,416]

wonder if we may not be asking too much of these data by requiring them to serve as the arbitrator in important questions such as the currently outstanding ones on the adequacy of gas supply. If we know more about the specifics, perhaps a different picture will emerge. One should not assume that the picture will necessarily turn out to be brighter. It may very well turn out to be dimmer than the data suggest—at least, it apparently was so in 1967. But whatever the true picture is, we ought to know it.

The concepts and some of the practices used in reporting the reserves data were discussed elsewhere.[1] Improvements have been made, in the meantime.

One need not subscribe to one variant or another of a conspiracy theory in order to want to know more about the specifics that go in the make-up of the data. These data will be used as the ultimate ground on the basis of which important issues may have to be resolved. There are therefore legitimate questions to ask, if one is to find out whether these data measure up to the task. Let me cite two examples—first an illustration from the conceptual apparatus.

1. The concept of proved reserves as currently used has an economic content to it—proved reserves being quantities recoverable "under existing economic and operating conditions."[2] There is no elaboration on what

[1] Wallace F. Lovejoy and Paul T. Homan, *Methods of Estimating Reserves of Crude Oil, Natural Gas, and Natural Gas Liquids*, (Baltimore, Maryland: The Johns Hopkins Press, 1965), pp. 97-144.

[2] A.G.A., *op. cit.*, p. 103.

is referred to as economic conditions. Yet it is of more than passing interest to know what factors are lumped under

[13,417]

this term, and the way these are made to influence reserves estimates.[1] Logically we would expect gas price to influence reserve estimates. An increase in gas price may be expected to lead to upward revisions of gas reserves. Yet, the few industry men I talked to about the subject deny that this will happen. To the extent that this is indicative of the thinking among the members of the Committee on Natural Gas Reserves, (we do not know if there is agreement among the members on the interpretation of the concept) one may wonder if proved reserves data indeed represent amounts recoverable under current existing conditions. As it is, I find it difficult to conceive of economic conditions which influence reserves estimates, but which exclude gas price from the list. Be that as it may, it is important to know more about the way this concept (and similarly other concepts defined only in broad generalities) is translated in operational terms.

2. Accounting practices and reporting methods also influence the picture conveyed by the data of the underlying situation.

In 1968, gross additions to non-associated gas dropped by 4 billion Mcf—from 18 to 14 billion Mcf.[2] One-third

[1] Incidentially, an earlier definition (used up until 1966) of proved gas reserves made no explicit reference to econmic conditions, but was qualified only with the proviso "under operating practices". Proved reserves of oil on the other hand were defined "under existing economic and operating conditions". A.G.A., *Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the U.S. and Canada, as of December, 1965*, pp. 6, 20.

[2] A.G.A., *op. cit.*, Table VIII, p. 121.

of this drop (1.3 billion Mcf) was due to a computational error in the 1967 reserves for Texas R.R. Commission District 10. The error resulted in an overstatement of

[13,418]

reserves in that district by .65 billion Mcf. When it was discovered in 1968 it was subtracted from the 1968 revisions.[1] As a result, a comparison of '68 with '67 shows an erroneous drop in reserves of 1.3 billion Mcf (double the .65 billion Mcf error).

How do the mechanics of the internal reporting work? Is there a system of checks through which data are channeled before publication? If adequate safeguards do exist, how did an error of this magnitude escape unnoticed?

Since the error was discovered in 1968, why was it withheld until 1969 when the 1968 report was published, rather than made known as soon as it was discovered? It is not uncommon for reporting agencies to send an errata sheet to the users of their statistics.

This is not to suggest that it would be comforting to know that supply in '68 was .65 billion higher and in 1967 .65 billion lower than reported. But to the extent that these data are to serve the decision maker as a signal of changing conditions, it does make a difference when the change is reported. The earlier the signal is received, the less drastic is the action necessary to correct imbalances.

From the accounting point of view, the procedure used in correcting for this error leaves much to be desired. Revisions refer to adjustments in gas reserves due to

[1] Letter of Ed Parkes, Chairman of the Committee on Natural Gas Reserves to Honorable Lee C. White, dated July 11, 1969.

the availability of new geological and engineering information on reservoir characteristics. Certainly a computer error does not belong in this category.[2] Assuming the only medium for reporting this error were the 1968 report, it would have been far better to report errors of this nature under a separate category, and trace them to their year of origin. This should do much to improve our notion of how gas reserves have been behaving.

[13,419]

In itself this error does not constitute the central problem. But it is symptomatic of a situation that requires looking into. There may also be a problem of consistency and timing in the reporting of revisions. The effect is very similar to that of accumulated depreciation deducted in one or two years leaving several years with inflated profits and others with enormous losses. To some it may not matter when the depreciation is deducted—in one year or over several years. But no businessman would settle for such an accounting method. No decision maker can function effectively when his notions about the underlying conditions are subject to distortions by accounting imbalances. Data must reflect the underlying situation, if the decision maker is not to be lulled into complacency at one time, or rushed into hasty action under crisis conditions in another—when in fact neither may be warranted.

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[2] Negative extensions is another instance where data are reported under revisions when in fact they do not belong to that category. When the size of the reservoir proves to be larger than orginally estimated, the difference in gas volume is reported as extensions. But when the reservoir size turns out to be smaller than originally estimated the difference is reported as negative revisions rather than extensions.

The task of developing reserves data parallel to A.G.A.'s to serve as a source of independent check may not be feasible for some time. But with so little known about available reserve data, I reiterate what I said earlier: it would be wise to require these data to pass the scrutiny test just as any other evidentiary material. This means that the process of compiling these data should be examined by the FPC to learn in more than a superficial way about the specifics that go into the make-up of these data. Where necessary, recommendations for improvements should be made—that is, if these data are to be accepted as evidence. The inquiry can be conducted by a third party, if necessary.

The task will take time to complete. For the present, it is inevitable that these data will have to be used in reaching a decision, as no alternative source of information exists. It would be very wise though to treat any findings on the basis of these data as provisional, and to limit the duration of any policy measure taken by the FPC on the basis of these findings to the time period necessary to complete such an inquiry.

/s/ J. Daniel Khazzoom
J. DANIEL KHAZZOOM

[13,420]

EXHIBIT E

MEMORANDUM TO: The Chairman
Vice Chairman Brooke
Commissioner Bagge
Commissioner Carver
Commissioner O'Connor
Bureau and Office Heads

FROM : Chief, Bureau of Natural Gas

SUBJECT : Meeting on Gas Reserves Estimation Methods

I have scheduled a meeting with Mr. John Jacobs, Chairman of the American Gas Association's Committee on Natural Gas Reserves, to discuss the A.G.A.'s methodology in developing reserve estimates. Mr. Jacobs may be accompanied by one or more committee members. The meeting will be held Thursday, April 2, 1970, at 2:00 p.m. in Room 2043.

Due to limited space, staff participation should be limited to those who can derive the most direct benefit from these discussions.

/s/ Thomas J. Joyce
THOMAS J. JOYCE

BNG
Joyce, T.J.:dt

[13,421]

EXHIBIT F

March 11, 1970

Chief, Bureau of Natural Gas

Chief, Office of Economics

Meeting with AGA Reserves Committee

In advance of the April 2 meeting with the AGA Committee, I believe it would be appropriate for you or Mr. Gooch to distribute to the Commissioners my memorandum of February 19, addressed to the General Counsel, raising questions regarding the AGA reserves data.

As you know, Mr. Schwartz and I will be out of the city on the meeting day. Perhaps the best way to stimulate discussion on the questions in my memorandum would be for the Chairman or yourself to bring them up. I expect that Dr. Khazzoom and Mr. Lawrence will attend the meeting, but the "rules" for meetings of this sort tend to inhibit staff participation.

I would appreciate having your reaction to the above suggestion.

/s/ Haskell P. Wald
HASKELL P. WALD

cc: Mr. G. Gooch
General Counsel

OEC
HPW/skp

[13,422]

EXHIBIT G

March 17, 1970

MEMORANDUM TO: The Commission

FROM : General Counsel

SUBJECT : Mr. Joyce's Meeting on the Reserves Estimation Methods with Mr. Jacobs

Since Mr. Jacobs will be a witness in AR69-1 (Southern Louisiana) I suggest that the Commissioners and their personal staff refrain from attending the meeting.

Mr. Joyce understands the situation.

GORDON GOOCH
GORDON GOOCH

OGC
Gooch,G.:rt
cc: Mr. Wald

[13,423]

EXHIBIT H

Mr. Richard Mattingly
OGC

March 13, 1970

Chief, Office of Economics

Comments on Questions for AGA

I have hurriedly reviewed your list of questions and they are now being studied by others.

In my opinion, you are on the wrong track in the approach you have taken. I see no value in a long series of largely one-sentence questions. The key questions must be developed in depth if we are to elicit useful responses. For example, a general question on the economic assumptions underlying the estimates will bring a general answer, such as the explanations appearing in published sources. The committee has been asked the same question many times before, but they have never provided a response which satisfies us. You must frame your question so that they will understand why we are not satisfied with their earlier answers. That is the reason why my question on their economic assumptions focused on their nonsensical answers that price does not matter.

Another example of a question which should be spelled out is the one you ask about probable reserves. You should indicate to the committee that we are raising this question because of the likelihood that some information on probable reserves is already being collected along with the data on proved reserves.

Because of our basic dissatisfaction with the list as drafted, it is going to be difficult for us to be helpful to you in revising it.

/s/ Haskell P. Wald
HASKELL P. WALD

cc: Mr. D. S. Schwartz
OEC

HPW/skp

[13,424]

Release of Intra-Agency Documents

[13,424]

EXHIBIT I

Richard V. Mattingly — March 16, 1970
Office of the General Counsel

F. W. Lawrence

Questions for Mr. Jacobs of AGA

After reviewing the question proposed for Mr. Jacobs, I suggest the following additions or revisions:

2. (Revision) Can the current membership of the Committee on Natural Gas Reserves be revealed? If so, please show the membership. If not, please indicate what percentage of its members represent: (a) distributors, (b) pipelines, (c) producers, (d) others (specify).

5. (a) What is the smallest geographical unit for which reserves are estimated? If state figures are the sum of areas within the state, can you indicate how many subareas are estimated but not shown? We would be interested in the number in each state or part of a state that is published.

11. (a) Are all estimates (including those not published) compared with the estimate for a similar area for the previous year? Are revisions, extensions, and new field and new reservoirs computed for all areas or only for the areas published?

29. (a) Are revisions to associated and dissolved gas reserves compared with revisions to oil reserves for the same area? Are revisions to NGL reserves compared to revisions to gas reserves?

38. Are area gas-oil ratios computed for oil fields?

OEC — F. W. LAWRENCE
FWL:lmv
cc: Mr. Wald
Dr. Schwartz
Dr. Khazzoom

[13,425]

EXHIBIT J

March 16, 1970

Richard V. Mattingly
Office of the General Counsel

Assistant Chief, Office of Economics

Comments Concerning Questions for Mr. Jacobs of AGA

After a review of the proposed questions for Mr. Jacobs, I have concluded that it would be a Herculean task to recruit, restructure, and with precise specificity, to formulate question by question substitutes for the 37 appearing on the list. Therefore, I will focus on four major areas that are of particular significance to this Office and formulate the pertinent questions pertaining to this subject matter. As an aside, it should be noted that the information sought in questions 1 through 4 are already a matter of public record.

Revisions of AGA Reserves (Questions 29 Through 37 on Your List)

One of the essential problems is whether this category is a residual which commingles reporting errors as well as reclassifications of gas and oil wells. Therefore, in line with Mr. Wald's memorandum to the General Counsel of February 19, 1970, entitled, "Questions Regarding AGA Reserves Data," the appropriate questions would indicate a clarification of the specifics identified in item 2. We should ask whether in fact the revisions category commingles reporting errors and reclassifications. Does the Committee have a year-by-year break-out of the errors as distinct from reclassifications? In those instances where sizeable negative revisions for associated and dissolved gas were made, why were these not accompanied

by equivalent revisions in oil reserves? Are these revisions made year-by-year or are they made intermittently depending upon a determination to re-examine the basic data? If they are made sporadically, what triggers the decision to re-examine the data? Are these revisions made for all areas every year or are they made for some areas in one year and other areas in another year? Do the instructions provide that revisions are

[13,426]

to be reported promptly when they are of certain magnitude or do they provide that they can be accumulated until a certain level of revision is indicated? Does the Committee have year-by-year data (and how far back) and is it feasible to publish a revised historical series adjusted for all reporting errors?

Expendible Roles (Question 15)

Are the wells drilled and considered "expendible holes" in the offshore area included as successful wells when they are plugged even though commercial production from these wells is feasible and operationally possible? Are "expendible holes" included in proved reserves?

Probable Reserves Classification (Questions 22 and 23)

What information does the Committee have with respect to reserves which have not been "proved up" and therefore could not be included in the proved reserve category? How far back does this information go? Can the Committee provide reliable reporting for a "probable" category in addition to its proved reserves delineation?

Economic Assumptions Implicit in "Under Existing Economic and Operation Conditions" (Questions 16 and 18 through 28)

The AGA Committee report indicates that the quantities of gas recoverable "under existing economic and operating conditions" are relevant to the proved reserves reported. There is no indication whether the reserve estimates relate to the prevailing price level of natural gas. If we assumed a price change upward or downward, what effect would this have on their estimate of proved reserves? If the price were changed, would the Committee re-examine its previous estimates and add gas volumes if the price were assumed to increase and reduce proven reserve estimates if the price were assumed to decrease? Is there any other connotations, other than price, in the terms "existing economic conditions"? If so, how do they affect proved reserve estimates?

[13,427]

In conclusion, I wish to indicate that I subscribe to the views Mr. Wald communicated to you in his memorandum of March 13, and I believe it will be difficult for us to reshape the questions on your list because of the general nature of their content.

/s/ David S. Schwartz
DAVID S. SCHWARTZ

OEC
DSS:lmv
3-16-70
cc: Dr. Wald
Dr. Khazzoom
Mr. Lawrence

[13,428]

EXHIBIT E

March 18, 1970

MEMORANDUM TO: Mr. Wald

FROM : Mr. Gooch

Haskell:

I have and note your and your office's memos criticizing the efforts of GSC and BNS to obtain complete testimony concerning AGA Reserves by submitting written questions to the witness through his counsel. I also note your telephone call to me suggesting that the submission of questions is somehow improper and that the lawyer should reserve all questions for cross-examination of the witness.

You must realize that AGA data is used by the staff. In fact, unless I have misunderstood you, you believe the data to be accurate, within reasonable limits. Two legal aspects are involved: One is admissibility—since, for the first time, a group has refused to stipulate; second is the weight to be acco.ded to the data. To resolve both questions, a witness is needed. I wanted the GSC lawyer to put the AGA witness on in order to make sure that there was a full and complete record for the consideration of the examiner and the Commission, as well as OEC and BNG. AGA p.efers a distributor group lawyer. This is fine. We could act like a regulatory Perry Mason and save all questions for cross-examination as you suggest—but for what purpose? If the witness did not know an answer to a question, he would simply supply it by some other means—after delay. By advising him in advance of the areas of interest, he may cover any or all of these

questions on his direct testimony, thereby providing information which we want. If his response needs clarification, cross-examination will afford an opportunity to do this. Result—no time wasted, and full and fair disclosure.

I would like to know if you still see anything improper in our submitting these interrogatories. If so, I would like to know why you would suggest that we reserve all questions for cross-examination.

[13,429]

As you know Jacobs will be here on April 2, not for purposes of preparing for AR69-1. Nevertheless, I would suggest that your office ask him any and all questions that you wish, in any form that you wish, since you find the efforts of my office to formulate the questions so unsatisfactory.

While I wish you to have full comprehension of these legal proceedings, my main concern is to avoid any delays in AR69-1 because of OEC. In my view, OEC has already delayed the directionality questionnaire. I want to make sure that your witnesses meet the schedule of testimony. Priority must be assigned to this.

GORDON GOOCH

GORDON GOOCH
General Counsel

OSC
Gooch, G.: jnf

cc: OGC

[13,430]

EXHIBIT L

March 18, 1970

TO: Mr. Gooch

FROM: Mr. Wald

Before the existing misunderstanding is compounded, I hasten to assure you that we firmly support—indeed, commend—your efforts to prepare the groundwork for helpful testimony from an AGA witness for AR69-1. My telephone call was motivated by surprise that our FPC lawyers are so flexible and that they believe we can submit advance questions without being accused of acting improperly on a matter that is in Hearing. It is a refreshing discovery to learn that we can strike out along new paths. Your analogy of a "regulatory Perry Mason" fits staff counsel's role in many earlier cases. I consider it to be a misconceived role which should have been discarded long ago.

I hope you will agree with our view that Mattingly's list of 37 questions was the wrong approach even for a start. The questions must be developed in reasonable depth, so that the source of the staff's concern is clear to the AGA group. Mr. Schwartz gave our suggestions to Mr. Mattingly by memorandum of March 16. You could hardly have expected a prompter reply. (Mr. Lawrence also sent comments at the same time.) My own reply to Mattingly was sent within an hour of our receiving his list on Friday the 13th. My February 19 list of questions (which really contains all the information Mattingly needed to frame the questions which concern us) was prepared within a day or two of your request. This record does not indicate that we have caused delay.

We were unsuccessful in getting Tom Joyce to change the April 2 date for the meeting with Mr. Jacobs. Mr. Schwartz and I will be participating in a public utilities conference in Michigan on that day. Mr. Lawrence will attend the meeting and will be prepared to cover our areas of concern. Dr. Khazzoom will attend if he is able to wind up his conferences at M.I.T. on April 1 and return in time for the meeting.

[13,431]

We must protest any suggestion that our efforts to design a usable directionality questionnaire have been a source of unnecessary delay. At the close of the prehearing conference an agreement was reached with the producers for them to start compiling the information at once, without waiting for the final questionnaire. Negotiations on the revision were held up because Mattingly was out of the office for a period (owing to a death in his family). BNG (Don Fisher) had many substantive difficulties with the way the questionnaire was framed and our efforts have been aimed at accommodating his problems as well as at making certain that we will collect usable data. We are unable to support Mattingly's tendency to side with the producers as the quickest means of getting the matter settled. A worthless questionnaire, such as the staff has issued at times in the past, is worse than none at all.

/s/ Haskell P. Wald
HASKELL P. WALD

OEC
HPW/skp

[13,432]

EXHIBIT M

UNITED STATES GOVERNMENT

MEMORANDUM

DATE: March 19, 1970

TO: General Counsel

FROM: Chief, Office of Economics

SUBJECT: Miscellaneous Observations on Arrangements for AGA Witness on Reserves Estimates

1. In preparing the list of questions, I would like to see a distinction between mock questions and genuine inquiries. The first category would include all questions where the answers are public knowledge and our purpose in including them is simply to complete the hearing record. Instead of itemizing these mock questions, you might consider framing a general request to the AGA witness to submit for the record the information on AGA membership, reserves committee membership, etc., along with all published documents describing the work of the reserves committee and the definitions used. The Hearing Examiner could be asked to take official notice of these documents, or the parties could be asked to stipulate that the documents are official AGA publications. I believe that it is more appropriate to have this information provided as submissions for the hearing record rather than in question and answer form. The second category, which I describe as genuine inquiries, should be developed in depth so that there will be no misunderstanding as to what we are seeking.

2. Is there any possibility of our persuading the AGA witness to provide for the record various documents which have never before been released to the public? For example: written instructions to the members of the reserves committee; blank forms on which the raw data are compiled; meeting dates for the various subcommittees and parent committee; written decisions by the parent committee concerning the handling of difficult estimating problems, etc.

3. I believe that our correspondence with AGA should be placed in the public information file. Are you planning to do that? Should we give other parties the opportunity to supplement our list of questions?

[13,433]

4. Will there be any opportunity for us to add to our questions after the April 2 meeting with AGA? It is possible that the meeting will expose some important areas not covered in our original list.

5. In my opinion, the most knowledgeable academician on the subject of reserves estimates is Professor Wallace F. Lovejoy of Southern Methodist University. His book, *Methods of Estimating Reserves of Crude Oil, Natural Gas, and Natural Gas Liquids* (published by Resources for the Future in 1965) is easily the most penetrating critique of these estimates. Perhaps we should consider retaining Professor Lovejoy as a consultant to the staff for this phase of the AR69-1 proceeding. If we see a need for a rebuttal witness, he would be an excellent candidate.

6. I am concerned that we may be exaggerating the importance of the AGA reserves estimates. It is true that these estimates are crucial for the new gas costing,

but they are not crucial for the end result. As you may know, I do not have any faith in the costing methodology and the resultant estimates. I believe that the most valuable source of information on the current gas supply situation lies in the experience of gas procurement personnel of pipeline companies. Are we confident that the pipeline companies will provide adequate testimony on their efforts to purchase new supplies and on the state of the gas supply market as they see it? Is there anything we can do in advance to make certain that the pipeline company witnesses will cover the subject in depth?

/s/ Haskell P. Wald
HASKELL P. WALD

cc: Mr. T. Joyce, BNG
Mr. R. Mattingly, OGC

OEC
HPW/skp

[13,434]

EXHIBIT N

March 23, 1970

MEMORANDUM TO: General Counsel

FROM : Chief, Office of Economics

SUBJECT : Propriety of Pre-Hearing Off-the-Record Meeting with AGA Witness in AR69-1

As a follow-up to our telephone conversation, you asked for a memorandum explaining my concern over the propriety of the scheduled meeting of the FPC staff with Mr. John Jacobs, Chairman of the AGA Committee on Gas Reserves, on April 2. Mr. Jacobs is one of the witnesses being sponsored by a group of gas distribution companies in AR69-1. His testimony is due on May 1.

My reasons for concern are separate from any legal objections which might be made. I am not taking a position on whether the meeting would or would not violate either the letter or spirit of the Administrative Procedure Act or other rules governing the conduct of hearings on matters being litigated before regulatory bodies. The following discussion involves the question of propriety in an extra-legal context: Is there any possibility that the meeting will be interpreted by other parties as an improper attempt by the FPC staff to influence the witness' testimony or to elicit information which might be of value to them if it were made available on the record? Should we expose ourselves to the possibility of criticism because the meeting will afford an opportunity for the witness to influence the FPC staff?

As I recall the original purpose of the meeting, it was to discuss possible arrangements for FPC staff partici-

pation as observers in the work of the Committee on Gas Reserves. It now appears that the purpose has been extended to include discussion of all questions which our staff may have regarding the validity of the AGA estimates of proved reserves. I draw this conclusion from your memorandum of March 18 inviting the OEC staff (and, presumably, also the BNG staff) to take full advantage of the meeting with Mr. Jacobs to "ask him any and all questions that you wish, in any form that you wish, ..." You made this suggestion partly because staff counsel Mattingly was

[13,435]

unable to accept some of our ideas for framing the questions being submitted to Mr. Jacobs in advance of the hearing. We see an important distinction between submitting questions which will be part of the official record of the proceeding and convening an off-the-record meeting with Mr. Jacobs to explore on a preliminary basis many issues being contested by other parties to the proceeding.

The root of my concern is that the meeting has the appearance of an *ex parte* communication.[1] It will be a closed meeting, there will be no transcript or official minutes, and there will not even be a public announcement that it is being held. Anyone who appreciates the intense suspicion with which the AGA estimates are regarded in some quarters should be sensitive to the danger of criticism if word of the meeting and the subjects discussed reaches outsiders.

---

[1] The Commission's rule on *ex parte* communciations (§ 1.4(d)) prohibits "any employee participating in the decision" from having off-the-record communications with a party to a proceeding on any matter at issue in a contested proceeding. Attendance by bureau or office chiefs (or their deputies) at the April 2 meeting would appear to violate this rule.

Moreover, I am not at all convinced that the meeting's broadened purpose is entirely consonant with the staff's role as an adversary party to the proceeding. In effect, we will be holding a "moot court." Not only will the AGA witness be clued in on various problem areas which he should be prepared to discuss in his testimony, but he may also gather suggestions on how he should shape his responses on cross-examination. No other witness will be given this advantage of trying out his answers on the staff and using the experience, if he wishes, to sharpen his defenses in advance of the hearing. Is it proper for the FPC staff to engage in an activity which may help an outside witness build his case? Will the fact that it will be done behind-the-scenes create an impression of collusion? Isn't there some advantage in eliciting spontaneous responses during cross-examination instead of well rehearsed ones? After all, our interest is in full and accurate disclosure, which may not be Mr. Jacobs' primary motivation, since he may wish to build the best possible defense of the AGA statistics.

In my opinion, the meeting is not needed to aid the objective of rounding out the hearing record. This can be achieved in the usual manner—through cross-examination, interrogatories, rebuttal testimony, off-the-record conferences in the presence of the examiner and all parties, etc. The AGA witness will in any case be primed for our

[13,436]

questions, since we have already submitted a list for him to cover in his testimony. What further gain will be realized by a trial run of his answers at the April 2 meeting?

It seems to me that a final decision on the meeting with Mr. Jacobs should be postponed until the above

questions concerning the meeting's propriety are discussed with the Chairman or the full Commission. In the past we have operated under definite instructions to avoid private discussions with witnesses on matters in hearings. A change in these instructions should not be made at the staff level. If we are advised to go ahead with the meeting, some consideration should then be given to providing the participants with ground rules as to the content and conduct of the meeting.

/s/ Haskell P. Wald
HASKELL P. WALD

cc: ED
Chief, BNG
Mr. Mattingly (OGC)

OEC
HPW/skp

[13,437]

EXHIBIT O

March 25, 1970

MEMORANDUM TO: Mr. Wald

FROM : Mr. Gooch

Haskell:

I appreciate very much the concern expressed in your memo of March 23, 1970, questioning the "propriety of prehearing off-the-record meeting of AGA witness in AR 69-1." While I find the reasons given in your memo are, if you will forget candor, wholly frivolous, I nevertheless have asked Mr. Joyce to postpone the meeting with Mr. Jacobs for the sole reason that you object. In doing so, let me make something very clear. Since the Jacobs meeting was not intended to affect—and would not have affected—expedition in AR69-1, I have accommodated you. Do not interpret this memo as a representation that the Office of the General Counsel will not confer with lawyers and witnesses outside of the staff. Such conferences are both legal and ethical.

As an example, OGC just put on a witness from Interior last week in the High Mountain Sheep case, even though Interior is an adversary party. If OGC is limited to staff witnesses and cannot even obtain relevant testimony from an outside witness, with or without a separate lawyer for the outside witness, as the witness chooses, I should know it as soon as possible. Such has been the practice for years, even before *Scenic Hudson.*

I will be happy to have my decisions reviewed at the Commission level. As a lawyer, I am bound to accept

the methodology desired by the client, absent impropriety. Why don't you arrange for a meeting with the Chairman. Mr. Joyce should also be invited to attend.

GORDON GOOCH

GORDON GOOCH
General Counsel

OGC
Gooch,G.:rt

cc: Mr. Joyce
Mr. Forquer
OGC

[13,438]

EXHIBIT P

March 27, 1970

MEMORANDUM TO: The Commission
Vice Chairman Brooke
Commissioner Bagge
Commissioner Carver
Commisioner O'Connor

FROM : Chief, Bureau of Natural Gas

SUBJECT : Meeting on Gas Reserves Estimation Methods

The captioned meeting scheduled for April 2, 1970, is cancelled.

/s/ Thomas J. Joyce
THOMAS J. JOYCE

cc: Bureau and Office Heads

[13,439]

EXHIBIT Q

UNITED STATES GOVERNMENT

MEMORANDUM

Date: November 10, 1970

TO: Chief, Office of Economics

FROM: Ralph A. Johnson

SUBJECT: Comparison of 1969 AGA Reserve Estimates with Staff Reserve Data for South Louisiana (AR69-1)

AGA's Committee on Natural Gas Reserves reports that estimated proved reserves for South Louisiana - Federal Domain were 24,102,454 MMcf in 1969.

By comparison, staff reserve estimates for the same area in AR69-1 (Exhibit No. 31A, Schedule No. 1) totaled 34,138,851 MMcf in 1969.[1] Thus, the staff estimate exceeds AGA's estimate by 10,036,397 MMcf or 41.6 percent.

Apparently none of this substantial differential can be reconciled on basis of uncommitted reserves being omitted from AGA estimates. AGA's 1969 reserves publication (page 95) states:

> These reserve estimates constitute an annual inventory of proved reserves which include gas and natural gas liquids reserves of all types *regardless of size, availability of market, ultimate disposition or use.* (Emphasis Supplied)

A comparison of AGA and staff reserve estimates for the South Louisiana area (onshore and offshore) offers

[1] Includes 1,094,607 MMcf available for sale.

only a slightly better independent check of AGA estimates. AGA shows reserves of 80,769,437 MMcf compared to staff's estimate of 76,997,393 MMcf.

Since the staff estimate does not include intrastate reserves, it is, therefore, deficient by an undetermined amount. That amount is likely to be in excess of the differential (3,772,044) MMcf between the AGA and staff estimates.

[13,440]

Comment

Other things being equal, AGA reserve estimates should be greater than staff estimates since staff estimates do not include intrastate reserves. The reverse appears to be the case in this comparison.

On November 9, 1970, I spoke by phone with Mr. John C. Jacobs, Chairman of the AGA's Committee on Natural Gas Reserves. Mr. Jacobs confirmed that uncommitted reserves are included in the AGA reserve estimates. He also suggested that a 10 percent differential in reserve estimates (AGA vs. staff) is not considered unreasonable.

To the extent that there is a differential greater than 10 percent between staff and AGA reserve estimates, AGA's estimates of the South Louisiana - Federal Domain reserves appear to be low. Conversely, staff estimates may be higher than reasonable for the area.

In summary, it appears that an independent check of AGA estimates of South Louisiana reserves indicates that there is a substantial difference in the amount of proved reserves that could be in the South Louisiana area.

/s/ Ralph A. Johnson
RALPH A. JOHNSON

OEC
RAJ/bjb
cc: OEC

[13,441]

EXHIBIT R

November 13, 1970

TO: Chairman Nassikas

FROM: Chief, Office of Economics

SUBJECT: Conflicting Estimates of Gas Reserves for Offsho.e Louisiana (Federal Domain)

The information on uncommitted reserves which was collected for the AR69-1 proceeding is very useful for comparisons between the AGA estimates and the Form 15 reports to this Commission. Up until now we have had no way of filling the statistical gap represented by uncommitted reserves which are intended to be included in the AGA reports but are of course excluded from our Form 15 reports.

Mr. Ralph Johnson of our staff has compiled the following comparison for the Federal Domain Offshore Louisiana as of December 31, 1969:

	Reserves (Billion Mcf)
Estimated by AGA	24.1
Estimated by BNG staff witness [1]	34.1
Difference	10.0

[1]Exhibit No. 31A, Schedule No. 1.

The BNG staff estimate is 10 billion Mcf higher than the amount reported by AGA. The excess equals 42 percent of the AGA estimate. Several explanations are possible: (1) pipelines may be over-generous in reporting

their dedicated reserves; (2) the AGA estimate may be based on more restrictive definitions than those followed by the pipelines; or (3) some reserves may escape the AGA reporting system. At the moment we do not know the true explanation.

[13,442]

The figures cited above are in the public record. The existence of so large a discrepancy between the two sets of estimates suggests that our Form 15 reports are useful for verifying the broad trends reported by AGA but not the reserves reported in particular producing areas.

A copy of this memorandum is being provided to Tom Joyce.

/s/ Haskell P. Wald
HASKELL P. WALD

cc: Chief, BNG

[13,443]

Release of Intra-Agency Documents

[13,443]

Nov. 19, 1970

MEMORANDUM TO: Chairman Nassikas

FROM : Chief, Bureau of Natural Gas

SUBJECT : Docket No. AR69-1—Comparison of Offshore Federal Domain Reserves as Reported in Staff Exhibit No. 31-A and as Estimated by AGA.

This report has been prepared in response to your request of November 16, 1970. The reserves reported by staff are, at the most, 7.9 trillion cubic feet in excess of the reserves reported by AGA. The difference is readily explainable.

The AGA reports remaining recoverable reserves in the Offshore Federal Domain at December 31, 1969 of 24.1 trillion cubic feet. Staff Exhibit No. 31-A reports, for the same area and date, reserves of 34.1 trillion cubic feet. The reserves reported in the staff exhibit represent an allocation of the reserves reported in Form 15 (27.6 trillion cubic feet), as supplemented by reserves reported by the pipeline companies as being dedicated but not in Form 15 (1.2 trillion cubic feet, Prehearing Exhibit No. 10), and by uncommitted and other reserves reported by the producing companies (5.3 trillion cubic feet, Commission Order of March 17, 1970). The reserves were not estimated by staff.

First, AGA and staff used different methods in the allocation of reserves, to State or Federal offshore Zones, for those fields which straddle the boundary between the State and Federal areas. AGA reported a total of 5.7 trillion cubic feet in these fields. Staff work papers also show a total of 5.7 trillion cubic feet in these fields.

The AGA method of allocation placed 1.6 trillion cubic feet in the Federal Domain. The staff method placed 3.7 trillion cubic feet in the Federal Domain. Parties to the proceedings agreed that the staff method was superior to the AGA method and did not attack the staff method on cross-examination. The different methods of allocation would therefore reduce the difference in Federal Domain reserves to *7.9 trillion cubic feet* from an apparent 10 trillion cubic feet.

The remaining difference can most probably be accounted for by the use, by AGA and pipeline companies, of different methods of estimating reserves in relatively wildcat or undeveloped areas such as the Offshore Federal Domain. The AGA has stringent rules regarding the productive areas that can be assigned to a field in the early stages of development when only one to three or four wells have been completed. The pipeline companies, on the other hand, assign productive acres on the basis of a broader geologic interpretation. (See Appendix A for an example)

[13,444]

Of course, the greater the productive area, the greater the reserves.

As these wildcat areas achieve a greater stage of development, the reserve estimates of AGA and Form 15 gradually become closer, until in the more fully developed areas, they become comparable. This is shown by the reserve estimates reported above in the fields situated in both the State and Federal areas. These fields lie close to shore, in shallow water for the most part, and have reached a stage of high development. Both the AGA and Form 15 report 5.7 trillion cubic feet for these fields.

As can be seen from the above, care should be exercised when comparing the reserves reported in the Form 15 with reserves reported by another source in areas in the early stages of development. A better comparison can be made in larger, more fully developed areas.

Care should also be exercised when comparing Form 15 and AGA reserve data on an annual basis. AGA reserves are reported in the year of discovery, but these same reserves might not appear in a pipeline's Form 15 until a year or more later due to the necessity of obtaining a contract with the producer and a certificate from the Commission. Taking this in account, comparisons can be made between Form 15 and AGA in trends of reserve increases or decreases, particularly in the more fully developed areas.

/s/ Thomas J. Joyce
THOMAS J. JOYCE

Attachment: 1

BNG
Gas Supply Section:cas
11/19/70

cc: Each Commissioner
Mr. Gooch
Mr. Curry
Mr. Albares
Mr. Mangen
Section Files

[13,445]

FIGURE 1—Well No. 1 was wet and abandoned. Well No. 2 discovered gas with deepest penetration of reservoir to -5005. AGA proved-developed acreage in block around Well No. 2. AGA proved-undeveloped acreage is area inside dotted contour excluding block around Well No. 2.

FIGURE 2—Well No. 3 completed as gas well in same reservoir as Well No. 2. AGA proved-developed and proved-undeveloped areas are extended. Deepest penetration of reservoir remains at -6016.

FIGURE 3—Well Nos. 4 and 5 completed as gas wells in same reservoir as Well Nos. 2 and 3. Well No. 5 tested water at -5040. AGA proved-developed and proved-undeveloped extended to gas-water contact at -5040.

[13,447]

EXHIBIT T

Date: November 19, 1970

MEMORANDUM TO: John N. Nassikas
Chairman

FROM : General Counsel

SUBJECT : Testimony on Gas Reserves Estimates in Docket No. AR69-1

In a memo of November 13, the Chief, Office of Economics, directed the Chairman's attention to a possible discrepancy between reserves estimated by AGA and those estimated by Staff Witness Zabel in his Exhibit No. 31A which has been introduced in evidence in Docket No. AR69-1. This same comparison was made during the testimony of Associated Gas Distributors Witness Al Bass on October 14, 1970. See transcript pp. 5530 ff. The existence and meaning of this discrepancy, if any, will be an issue when AR69-1 is before the Commission for decision.

/s/ Gordon Gooch
GORDON GOOCH

OGC
Gooch,G.:lsm
11/19/70

[13,448]

EXHIBIT U

December 1, 1970

To: Mr. Wakefield

Please add an asterisk (*) after my signature and type in the following below:

"Comments by Mr. Wald:

1. A 40 percent allowance for judgmental factors may be appropriate for new fields without production experience, but not for fields which have been in production for a few years. Much of the offshore reserves is in the latter category.

2. I agree with the statement about corroboration of broad trends. However, the reliability of the AGA data for estimating unit costs or for assessing the adequacy of current supply is a separate issue—and a critical issue for the Commission's area rate decisions."

I would of course welcome the appropriate changes in the memorandum to accommodate my comments, so that I might sign without reservations.

/s/ Haskell P. Wald
HASKELL P. WALD

[13,449]

EXHIBIT V

December 16, 1970

MEMORANDUM TO: Chairman Nassikas

FROM : General Counsel
Chief, Bureau of Natural Gas
Chief, Office of Economics

SUBJECT : Comparison of Offshore Southern Louisiana Reserve Estimates

The memorandum of November 13 from the Office of Economics compares the estimate of Southern Louisiana reserves in the Federal Domain published by the American Gas Association (24.1 billion Mcf) with the figures which were introduced in AR69-1 in Staff Exhibit No. 31-A for the same area and date (34.1 billion Mcf). The latter figure consists of the total of reserves volumes of gas dedicated to the interstate market, as estimated by the pipelines in their Form 15 reports, reserves volumes which pipelines estimate they hold under contract but have not yet been certificated, and uncommitted reserves volumes as estimated by the controlling producers. We do not believe that the difference in these two estimates should cause the Commission's staff to view either the AGA or the Form 15 volumes as being unreliable.

As is adequately explained in the attached memorandum from the Chief, Bureau of Natural Gas, the AGA uses different methods in estimating proved reserves in an area than are used by the pipelines when estimating reserves for their Form 15 reports. These differences become more pronounced in relatively undeveloped areas such as Offshore Southern Louisiana. As BNG's memo-

randum further points out, the difference in methods used by AGA and the staff witness in allocating "straddling" fields between the State area and the Federal Domain accounts for 2.1 billion Mcf of the difference in the estimates.

While the staff has not and does not suggest that a direct correlation exists between the estimates of reserves made by the pipelines in their Form 15 reports and those

[13,450]

published by the AGA, the general trends shown by the Form 15 data for reserves to production ratios parallel and corroborate the trends of the AGA data for the same period of time. Insofar as such ratios are useful in assessing the adequacy of the current natural gas supply, the Form 15 reports tend to confirm the information supplied by the AGA.

The Commission has made use of AGA published estimates for additions to reserves and production volumes in determining certain unit cost components when setting area rates. The determination of the figures to be used for additions to reserves is based on trends ranging from five to fifteen years. The estimate of additions for any particular year, therefore, is significant only insofar as it may affect the long-term trend of reserves added. Since the cost components involved are calculated from annual additions to reserves, the estimate of total proved reserves at a point in time would not be a factor in the cost computations which have been used in setting area rates. The figures introduced in AR69-1 in Staff Exhibit No. 31-A do not in any way influence our opinion that the Commission may reasonably rely upon the AGA reserve figures.

As pointed out in the BNG memo, pipelines companies assign productive acres on the basis of a broader geologic interpretation than that used by AGA. However, even were the same geologic interpretations followed by both, the estimates which different geologists would make from the same geological and geophysical data would be likely to vary. The judgmental factors involved make mathematical precision impossible. Staff geologists believe that a difference of 20 percent, plus or minus, appearing in the estimates of two geologists would not establish either estimate as being unreasonable. Thus a total range of 40 percent could be allowed and might even be conservative in a relatively undeveloped area such as the Federal Domain.

[13,451]

Memorandum to Chairman dated December 16, 1970, regarding Comparison of Offshore Southern Louisiana Reserve Estimates.

/s/ Gordon Gooch
General Counsel

/s/ Thomas J. Joyce
Chief, Bureau of Natural Gas

/s/ Haskell P. Wald
Chief, Office of Economics

[13,452]

EXHIBIT W

March 23, 1971

Mr. Gordon Gooch
General Counsel

Chief, Office of Economics

Staff Brief, AR61-2 and AR69-1

We are seriously concerned over a problem which has developed in connection with the preparation of the Staff Brief in this proceeding. We would welcome your assistance in resolving the problems at this early stage, but if you do not wish to involve yourself we would like you to delegate the responsibility to the appropriate person in OGC.

From our conversations with Mr. Mattingly we learned that he plans to take the position that it is impossible to establish a quantitative relationship between the price of natural gas and the supply response. If this line of argument is pursued in the Staff Brief, it would have the effect of undermining the value of the econometric testimony by Dr. Khazzoom.

You will agree, I am sure, on the desirability of a unified staff position in the Brief. Considering that the policy guidelines provided by the projections of the econometric model are consistent with the staff testimony on rate design and needed additional gas supplies, I believe that it is unnecessary for the Brief to argue, among other things, that a quantitative relationship between price and supply cannot be estimated within a reasonable range of reliability. The Commission should be encouraged to give as much weight to the econometric testimony as it finds appropriate based on the record before them.

[13,452]

Release of Intra-Agency Documents

We would appreciate the assistance of your Office in seeing that the Staff Brief does not expose a conflict of views within the Staff on the place of the econometric testimony in the staff case.

/s/ Haskell P. Wald
HASKELL P. WALD

cc: Mr. Mattingly
Mr. Nierenberg

HPW/skp

[13,453]

EXHIBIT X

March 26, 1971

MEMORANDUM TO: Mr. Wald
Chief, Office of Economics

FROM : General Counsel

SUBJECT : Staff's Brief, AR61-2 and AR69-1; your memo dated March 23, 1971

It is premature for me to interfere with the preparation of the brief in this case. Mr. Mattingly and Mr. Nierenberg have been given their assignments, and the brief when prepared, will be reviewed by me. At that time, I will be pleased to discuss any comments that you have. If, in fact, the BNG testimony is inconsistent with the OEC testimony, it will be necessary for Mr. Mattingly to deal with both. It is my intention to minimize any differences, but, if the record reflects inconsistencies, the brief can neither ignore nor conceal the inconsistencies. I am sure that you do not intend to seek a commitment from me at this point, that the brief will support the OEC position over the BNG position, whatever it is. It is the duty of the lawyers to bring all pertinent evidence to the attention of the Commission, regardless of its source.

GORDON GOOCH

OGC
Gooch,G:jnf

[13,454]

EXHIBIT Y

March 26, 1971

MEMORANDUM TO: General Counsel

FROM : Chief, Office of Economics

SUBJECT : Your Memo of March 26, 1971 (Re: Staff Brief in AR61-2 and AR69-1)

You are correct in stating that I am *not* seeking a commitment from you "that the brief will support the OEC position over the BNG position . . .". In the first place, there is no "OEC position," but only the testimony of an OEC witness, Dr. J. Daniel Khazzoom (and also that of other OEC witnesses whose testimony is not relevant to the subject of our exchange.) Secondly, there is no inconsistency between the prepared testimony of the BNG staff and Dr. Khazzoom's testimony. The only suggestion of a possible conflict is the following response of staff witness Engel to a question on cross-examination, "To what extent did you rely upon that econometric model?":

> Well, I did not rely upon this model specifically, because I feel that you cannot set forth in a mathematical formula the relationship between change in gas price and a change in supply to be forthcoming. But I do agree with the general proposition that a change in price is related to a change in gas supply to be forthcoming. (Tr. Page 7461, Volume 56.)

You will agree, I am sure, that the above statement can hardly be interpreted as expressing the "BNG position." In his prepared testimony Engel in fact calls attention to the Khazzoom model as addressing itself to the price-supply relationship. Furthermore, the opinion of a staff

engineer does not dispose of a question which is uniquely within the province of a professional economist, namely, whether the price-supply relationship lends itself to quantitative analysis.

My March 23 memorandum was written to express our concern over Mr. Mattingly's apparent intention to inject his own personal skepticism of the value of econometrics into

[13,455]

the staff brief. The staff presentation does not support such an argument which can only be interpreted as undermining the Khazzoom testimony.

Mr. David S. Schwartz is prepared to review the draft of the staff brief. It is our understanding that Mr. Mattingly is planning to have it ready about a week before it must be sent to the printing plant. Mr. Schwartz will discuss his comments with Mr. Mattingly and, if necessary, directly with you.

/s/ Haskell P. Wald
HASKELL P. WALD

cc: Mr. Mattingly
Mr. Nierenberg
Mr. Schwartz

OEC
HPW/skp

[13,456]

EXHIBIT Z

UNITED STATES GOVERNMENT

MEMORANDUM

Date: April 2, 1971

To: Richard Mattingly, Jr.
Office of the General Counsel

FROM: Assistant Chief, Office of Economics

SUBJECT: Review of Draft Brief in AR69-1

The comments that follow are in response to your memo of March 30, 1971 and will be organized along two lines. Firstly, I will have some general observations with respect to the draft and, specifically, as it pertains to the OEC witnesses other than Dr. Khazzoom. Secondly, detailed comments relating to the section entitled, "The Response of Gas Supply to Price," will be provided.

General Comments

Unlike previous staff briefs in the various area rate proceedings, this draft does not provide a detailed analysis of the direct testimony of the various staff witnesses. The emphasis appears to be on providing the procedural history together with a very general evaluation of special problem areas relating to gas supply, the demand for gas, the desired level of service, and supply response to price and a number of specific considerations going to recommended rates and other special problems. While it appears that these are major areas for analytical effort, nonetheless, they are not fleshed out and documented with primary reliance upon testimony and exhibits of various staff witnesses. (With the exception of the anonymous reliance on Engel)

For example, there is no mention made of Mr. Lawrence's testimony or reliance on his exhibit in your discussion concerning the demand for gas or expected supply availability. Although it would appear from the subject headings of your draft, the purpose of his testimony would, indeed, be organically related to the subject matter. As you are aware, the objective of Lawrence's testimony as stated in the transcript is as follows:

[13,457]

> My testimony is concerned with the relationship between gas requirements and potential sources of supply in the near term future. In this testimony I compare the projected requirements for gas with the expected supply availability, including prospects for gas imports and synthetic gas. In addition, I review the potential new demands for gas which may develop during the next few years, and indicate the alternative sources of fuel which may be called upon in the event that the market for gas exceeds the available supply, and suggest steps to avoid a gas supply-demand imbalance.

While it is true that Dr. Charles Stalon's testimony is of a more theoretical nature and could not easily be fit into the framework of the draft as it is now postulated, nonetheless, this may reflect on the infirmities of the structure of the draft rather than on the lack of cogency of Stalon's presentation. As you are aware the purpose of Dr. Stalon's testimony is as follows:

> Stated broadly, the purpose is to provide an analytical framework for consideration by the Federal Power Commission (FPC) to use in reaching a tenable decision on the ceiling price to be established in this proceeding. This will be done by examining

the structure of incentives within which the producers and users of natural gas make their decisions. The analysis concentrates on the role of "prices" and "costs" as determinants of the "supply" and "demand" for natural gas. The analysis is abstract in the sense that it simplifies and formulates a number of generalizations concerning economic processes which are in themselves exceedingly complex. The generalizations developed are then used to clarify the options available to the FPC in its role as regulator of field prices of natural gas. In summary, my objective is to provide for the record a set of economic principles which I think must be considered in establishing a price structure for natural gas.

[13,458]

Perhaps, the Office has no cause for complaint over your ignoring the testimony of Lawrence and Stalon because you have treated virtually all staff witnesses with an evenhanded disregard. By doing so you have seriously detracted from the value of your brief.

The Response of Gas Supply to Price

The primary concern of this Office goes to the above captioned section. This is particularly true because the material contained therein is unnecessarily at odds with the economic relationships postulated by the econometric model. I find the level of economic analysis contained in this section (pages 17-23) shallow, incorrect, and lacking in logical cohesiveness. For example, the sentence, "The proposition that gas supply is price elastic (i.e. responsive to price) would ordinarily be expected not to require extensive discussion," is meaningless. There is a multifaceted number of analytical concepts which could

give this sentence meaning but they do not necessarily all move in one direction. We could have very little elasticity in the *short run* as a response to price, or greater than or less than unitary elasticity in the *long run* in response to price. To say that gas supply is price elastic does not tell you anything with regard to whether the elasticity is positive, negative, or unitary.

More disturbing is the reference to the earlier econometric model in AR61-2. No use is being made of this model by the staff because it has been replaced by the new model. It is totally inappropriate, therefore, to include a discussion of a model which was prepared 10 years ago to deal with the issues of that period (see below). In addition, the characterization of the model is a gross misstatement and completely contrary to its economic implications. Any discussion of that model in a staff brief should at least reflect an understanding of its basic features and should not mimic the attacks by politicians.

One must realize that when the earlier model was formulated, the cost of alternative fuels was at a level approximating the price of gas; in fact, in certain industrial markets coal was

[13,459]

relatively less expensive. In addition there was no demand-supply imbalance; if anything, a surplus of gas overhanging the market. Therefore, the model indicated that a price increase could reduce demand and this then in turn would ultimately press upon the supply factor and reduce exploratory effort. It did not purport to show that gas supply was not responsive to price and was responsive primarily to demand irrespective of cost or profit considerations, as stated in your draft. I can-

not understand why it is difficult for you to conceive of the fact that an increase in price for any commodity could in fact reduce demand if there are alternatives available or if consumers can curtail their consumption because of the higher cost now associated with its purchase. There are many examples of consumer response to price increase which resulted in a reduction of the demand for the product and subsequently, a reduction in the supply of the product. For example, look what happened to the demand for cars in 1970 after the increase in the price of cars over that obtaining in 1969.

The statement that subsequent history demonstrates the invalidity of the earlier economic studies is outright nonsense, because we now have a whole new set of factors in play (e.g., inflation, environmental concerns) which in fact were not existent at the time the earlier model was formulated. The Commission in not adopting the earlier model indicated its promise and urged continued effort to refine and perfect the results.

If the desire to discredit MGD Witness Davidson is predicated upon his position somewhat paralleling the results (as you perceive them) of the earlier model, I think there are more valid bases for criticizing his presentation. For example, his discussion of the industry's desire to withhold reserves to obtain higher prices could be criticized on the basis of his failure to calculate the cost of withholding reserves and the present value of the revenues that could be received from these reserves and, therefore, an inability to assess the economic advantage of selling gas in a period where interest rates are very high. Additionally, I think it is incorrect to deny, as you do on page 18, the fact that in a

period of high interest rates the cost of money will affect the profitability of marginal prospects and will have an influence on new exploration.

One of our major concerns goes to your treatment of gas supply response to price (beginning on the bottom of page 20 and continuing through page 22) because this undermines the econometric testimony provided by Dr. Khazzoom. It is difficult for this Office to understand why the views of an engineer (Tr. pages 6770; 6791) should provide a predicate for a conclusionary statement (which follows) when the subject matter is uniquely economic in nature. The statement I am referring to is as follows:

> While the responsiveness of gas supply to price is certain, it is most difficult to accurately forecast in advance the specific volume of gas which will be discovered in relation to any given price.

The truth is this is another statement which superficially appears to have meaning but, in fact, is of very little substance. Certainly, gas supply will respond to price, but the important consideration is, how? Again, while it is difficult to forecast accurately with regard to new discoveries in relation to price, nonetheless, it is not impossible to do so within certain parameters and it obviously is appropriate for the staff to attempt a forecast. This, of course, is the objective of the econometric model, namely, to gauge the relationships of those factors that are affected by price and to interrelate those factors to get reasonable forecasts.

Another sentence which is difficult to understand (page 21) is as follows: ". . . then an increase in gas price can be expected to have a direct, positive effect on the exploration effort, and the greater the price increase the greater will be the increase in the exploration effort, until the point of full resource utilization is reached." The implications of the greater exploratory effort associated with ever increasing

[13,461]

prices reflect the supply side of the equation. You seem to have divorced the implication of ever increasing prices on the demand side. Additionally, I do not know what is meant by "until the point of full resource utilization is reached." This appears to be a physical concept (extraction of gas from the ground) but I do not see its relationship to the prior discussion.

At page 21 (last sentence) you question the ability to determine the volume of reserves discovered which can be estimated from the amount of footage drilled. The fact is that BNG does assume that a certain volume of reserves will be forthcoming on the average from drilling activity and your statement runs contrary to the assumption in the BNG costing.

Lastly, you contend, because of the many variables, that it is meaningless to "project future supply" and that supply response "must be considered on the basis of an informed judgment." This, of course, begs the question. The econometric model was formulated as an empirical evidentiary predicate so that the Commission could exercise informed judgment. What I am fearful of is that your view of informed judgment excludes the necessary factual underpinning which is essential for intelligent informed judgment.

It may be advisable that we discuss the problems articulated before the draft is finalized.

/s/ David S. Schwartz
DAVID S. SCHWARTZ

OEC
DSS/lmv
cc: Mr. Gooch
Mr. Forquer

[13,462]

EXHIBIT AA

April 9, 1971

MEMORANDUM TO: David S. Schwartz and
Roy A. Nierenberg

FROM : Richard V. Mattingly, Jr.

SUBJECT : Staff Brief in AR61-2 and AR69-1

I have reviewed your draft on econometrics for the staff brief in AR61-2 and AR69-1. Based on my own analysis of this material and the evidence to which it relates, I conclude that Dr. Khazzoom did not consider in any meaningful way the level of profitability required to induce producers to commit capital to the search for non-associated gas reserves. More importantly, Dr. Khazzoom did not consider either the current or anticipated cost of finding and producing non-associated gas. As a result, the model does not determine what portion of any potential price increase would go to cover increased costs, and what portion, if any, would be left for the producer. In these circumstances it is difficult to understand how the model could be expected to forecast producer or supply response with any degree of reliability. The Khazzoom model seems clearly subject to the same fundamental criticism made of the Edmonston model, namely that it does not consider costs or profits. (*Austral*, 428 F. 2d 407, 436; footnote 91).

Nevertheless, I do not intend to prejudice your position on this issue, since it is for the Commission ulti-

mately to decide. Accordingly, I have no objection to the inclusion of your material in the brief.

RICHARD V. MATTINGLY, JR.

OGC
Mattingly, R.V.:jrt

cc: Mr. Gooch
Mr. Forquer
Mr. Wakefield
Mr. Wald
Mr. Sewell
Mr. Gruchy
Mr. Mattingly

[13,463]

EXHIBIT BB

April 20, 1971

Mr. Richard V. Mattingly

Office of General Counsel
Chief, Office of Economics

Comment on Initial Staff Brief, AR61-2 and AR69-1

Permit me to call your attention to one line of argument in the Staff Brief which is completely erroneous. Noting that the industry paid approximately $850 million for offshore leases in December 1970, you draw the conclusion that "this provides a striking measure of the cost of doing business in the offshore area" (page 95). On the contrary, the staggering amount the industry *voluntarily* bid for these leases is a striking meaure of the *high profits* anticipated from drilling the leases. The industry would not have paid as much as $850 million unless it estimated that it could afford to do so, and also pay a 1/6 royalty, and still reap an adequate return on its investment. In effect, the lease sale invited the industry to share its expected profits with the U. S. Treasury.

In other words, the correct interpretation of the $850 million is that the industry is optimistic about finding large reserves and selling the gas at a price which will yield revenues far in excess of the estimated costs. We do not know what price the industry used in its calculations. If the price was no higher than 26 cents per

Mcf, in all probability the industry is anticipating lower unit costs offshore than onshore.

/s/ Haskell P. Wald
HASKELL P. WALD

cc: Mr. Gooch
Mr. Wakefield
Mr. Forquer
Mr. Nierenberg

OEC
HPW/skp

[13,464]

EXHIBIT CC

Mr. Richard V. Mattingly
Office of the General Counsel

April 20, 1971

Office of Economics

Response to Your Objections to the Econometric model

Mr. Schwartz asked me to respond to your memorandum of April 9, "Staff Brief in AR61-2 and AR69-1)."

Your objections to the econometric model are answered on pages 45-48 of the Staff Brief in the section headed: "F. The Staff's econometric analysis deals separately with the costs of inflation and real costs of finding future supplies of gas. Thus the analysis implicitly considers costs." In addition, we call your attention to the consideration of profitability by Dr. Khazzoom in Exhibit 46 (pages 9, 11, and 42-43, among others) and to his discussions of supply elasticity. The essence of the supply elasticity concept is the variation of costs (including profits) with changes in new gas supply.

It appears from your memorandum that you have missed the meaning of the supply elasticity estimates provided by the econometric model. These estimates measure the producer's response to price, but in doing so they also measure his response to costs and profitability. If costs had been too high, or profits too low, the response to price indicated by the model would not have occurred. Not only does the model include an explicit adjustment for the effects of inflation—since the prices are deflated by the wholesale price index—but it also includes a straight-forward recognition of changes in "real" costs.

We recognize that non-technicians will be baffled by the mathematics of the model, but there is no reason for anyone to fail to see that its purpose is to present a quantitative expression of the conventional supply curve showing rising supply with higher prices. The slope of the supply curve—that is, the amount of additional supply induced by each penny increase in price—is determined by the additional cost and additional profitability associated

with new increments of supply. In one bold stroke, so to speak, the model analyzes the industry's past performance and derives estimates of the increment in price that is necessary to cover both the higher costs of an expanded supply and the increased profits to induce larger investment in gas exploration and development. It is of course assumed that the supply curve estimated from past observations offers a reasonable starting point for projecting the supply response to price in the years immediately ahead. Economic phenomena of this sort are usually characterized by systematic behavior.

We trust that this elementary explanation of supply curves will serve to assure you that Dr. Khazzoom did not overlook costs and profitability when he formulated his model. He did not want to engage in loose guesswork about future costs, instead, he devised a refined method of projecting these costs using tested equations based on past performance. If you know of a more reliable method of forecasting the probable supply response, we would welcome hearing about it.

PHYLLIS H. KLINE

cc: Mr. Gooch
Mr. Forquer
Mr. Wakefield
Mr. Nierenberg

[13,466]

EXHIBIT DD

April 21, 1971

MEMORANDUM TO: Phyllis H. Kline

FROM : Richard Mattingly

SUBJECT : The Econometric Model

Thank you for your recent memorandum concerning the econometric model. As suggested I have reviewed pages 45-48 of the brief as well as Exhibit No. 46 itself, in an effort to gain further insight into the critical issue of whether, how, and to what extent the model makes provision for existing or anticipated cost and profit levels in estimating the response of gas supply to price. This review serves to further confirm my prior conclusion that Dr. Khazzoom did not consider costs or profits, past, present or future, in any meaningful way.

Reference to page 45 of the brief indicates the analysis "implicitly considers costs", and "implicitly includes provision for profits". The implicit nature of the cost and profit analysis is emphasized again at page 48. In my opinion an "implicit" analysis of costs and profits by reference to prices or price trends is not sufficient. Specifically, historical ceiling price data do not indicate whether the sales at those prices were profitable, or if profitable, how profitable. Likewise, it is impossible to determine future profitability at any assumed price level without a related assumption as to anticipated cost. Profit is the primary incentive factor involved, and unless and until it is quantified for past periods and estimated for the future, its effect on the producing industry cannot be reliably predicted. In order to determine

profit, it is necessary in turn to determine cost, since it is the difference between price and cost which determines profit or loss. These comparisons must in my view be explicit rather than implicit. This is especially true where there has been a substantial lapse of time since the last price increases. Such is the situation with respect to ceiling prices for natural gas, which have been more or less declining since 1960. It is probable that finding and producing costs have increased

[13,467]

substantially during the period since 1960, and even substantial price increases at the present time may well go primarily to cover increased costs rather than contribute to increased producer profit. However, if an additional price increase were allowed a year later, the effect on producer profit and supply response could be expected to be much more positive, since cost increases would ordinarily be minimal over a one year period, and the bulk of the second price increase consequently would contribute primarily toward increased producer profit. Thus, the greater the period between price increases the greater the need to quantify costs and profits, and conversely the shorter the period between price increases the less the need to quantify costs and profits.

Probably more significant than the failure to adequately consider costs and profits is the lack of an adequate data base necessary to support the desired projections of supply response. Assuming future supply response can be predicted by reference to historical experience, it is nevertheless clear that judged by any reasonable standard the available historical ceiling price data are totally inadequate for the purpose. The data utilized by Dr. Khazzoom, as set forth at Table A-4 of Exhibit No. 46, indi-

cate clearly that gas ceiling prices for all areas have generally declined or at best remained static during the entire period 1961-1969 as a result of Commission regulation through its Policy Statement No. 61-1, "in-line" proceedings, company-wide settlements, and area rate proceedings. As a result, these historical ceiling price data cannot be expected to provide a reliable basis for determining the response of gas supply to price *increases*, particularly increases of several cents per Mcf or even six cents per Mcf as recommended under the terms of the settlement proposal. This alone would seem to render the model fatally defective.

It might also be noted that the model does not measure the impact on supply of price increases for flowing gas. In my opinion this is a serious omission in Dr. Khazzoom's analysis, since the cost of finding new reserves must be defrayed largely out of revenues generated from current production. The availability of capital is a critical factor which simply cannot be ignored.

[13,468]

Going beyond even these considerations, however, it appears that the inherent unreliability of the Khazzoom model is demonstrated by the recently available gas reserves statistics for 1970. Reference to page 162 of Dr. Khazzoom's Exhibit No. 46 (Column 2) indicates that under the recommended equation 5**, nationwide new discoveries of approximately 2.7 TCF are projected for 1970. The actual volume of 1970 new discoveries as reported by the AGA amounted to 5.1 TCF. Thus Dr. Khazzoom's nationwide forecast for 1970 was 90 percent in error. His forecast for selected districts was in error by over 50 percent, and his forecast for Southern Louisiana was in error by 130 percent!

It therefore appears that the model is not only defective in theory but that it is also wholly unreliable in application. The evidence continues to demonstrate the futility of attempting to measure gas supply response to price by means of mathematical formulae where the necessary underlying information is not available. The lack of adequate data cannot be overemphasized.

/s/ R. V. M.

OGC
Mattingly, R.V.:jrt

cc: Mr. Gooch
Mr. Forquer
Mr. Wakefield
Mr. Wald
Mr. Schwartz
Mr. Nierenberg

[13,469]

EXHIBIT EE

April 21, 1971

MEMORANDUM TO: Chief, Office of Economics

FROM : Richard Mattingly

SUBJECT : Southern Louisiana Brief

Thank you for your recent memorandum concerning the staff brief in AR69-1. While I do not agree with you on the conclusions to be drawn from the December, 1970 offshore lease sale, I can nevertheless appreciate your position. I feel sure that had you brought this to my attention earlier an accommodation could have been reached.

As you may remember, you returned your copy of the AR69-1 draft brief to me without comment, and further indicated you did not wish to participate in the draft review procedures. Your instructions were to coordinate preparation of the brief with Dave Schwartz of your office. This procedure was followed. I had a number of discussions with Dave and with Roy Nierenberg of OGC. As a result of these discussions a number of substantive changes were made in the brief at their request, and it is my impression that virtually all disagreements were resolved to their satisfaction. However neither you, nor Dave mentioned the problem which you raise in your memorandum, and I was thus totally unaware of your disagreement.

Every effort should be made to resolve issues such as this at the staff level prior to issuance of the brief. Criticisms such as yours are essentially destructive rather than constructive when, as here, they are made after

the fact. I assure you that I will continue to make every effort to accede to the suggestions advanced by your office on any issue, and I hope in the future any questions or disagreements will be brought to my attention in time to permit their resolution to the satisfaction of all concerned.

/s/ R. C. M.

OGC
Mattingly, R.V.:jrt

cc: Mr. Gooch
Mr. Forquer
Mr. Wakefield
Mr. Schwartz
Mr. Nierenberg

[13,470]

EXHIBIT FF

UNITED STATES GOVERNMENT

MEMORANDUM

Date: April 30, 1971

TO: Richard V. Mattingly, Jr.
Office of the General Counsel

FROM: Assistant Chief, Office of Economics

SUBJECT: Comments Concerning AR69-1 Reply Brief

I have reviewed the proposed Reply Brief in AR69-1 and discern that there are two areas which are directly related to economic analysis. I will address myself to these areas with the hope that you will objectively evaluate my comments and modify the presentation.

In the section entitled, "Supply Demand Issues," there is a subsection (page 4) designated as "III. *Interest Rates Do Not Account for the Gas Shortage.*" As you are aware (See memo of April 12, 1971 pertaining to Initial Brief in AR69-1.), I do not feel that you have accurately assessed the impact of high interest rates on the cost of money and the profitability of developing and exploring for marginal prospects. In addition, I believe that discussion on pages 4-6 is contradicted by the testimony of Witness Stalon (OEC) with respect to the impact of interest rates on the cost of holding gas in the ground and the effects on the producers' incentives to explore and drill for new reserves.

As Stalon indicated it is an elementary principle of economics that where we have a positive interest rate a dollar received today is worth more than a dollar re-

ceived in the future. Therefore if we utilize a 10% rate of interest this would mean that the present market value of a dollar to be received one year from today will be approximately 91¢ and two years from today about 82¢. The present value of money to be received in the future depends on the rate of interest which is used for discounting the future payments. The higher the interest rate, the greater the likelihood that producers will defer decisions to develop potential supplies or undertake new exploratory effort. Higher interest rates also penalize any withholding of reserves from the market.

[13,471]

In addition, it is difficult for me to understand the nature of your resistance in acknowledging the impact of high interest rates on the gas supply picture, in light of the fact that high interest rates as a cost of capital component indicate the need for higher prices. This, I believe, is symmetrically related to the general thesis that you have been propounding concerning the inadequacies of prices as a causal factor for the present unavailability of supply.

In light of these factors, I suggest you modify the above-mentioned subsection along the lines of the language suggested below. I would change the heading to read as follows: "III. *The Gas Shortage Cannot Be Primarily Attributed to the High Rate of Interest.*" I would delete the first two sentences and substitute the following material: "MGD Witness Paul Davidson stressed the importance of rising interest rates as a factor influencing the unavailability of gas in recent years. Unfortunately, he did not place the significance of high interest rates in a proper perspective. Obviously, since high interest rates result in a higher cost for holding gas, it

would appear that this would run contrary to his contention that supplies are being held off the market because of anticipated higher ceiling prices. In addition, the higher interest rates provide a disincentive to withhold gas from the market. Lastly, higher interest rates associated with a higher cost of capital require higher gas prices because interest is a cost component to be considered in setting ceiling prices."

I would move the material following the first two sentences which I suggest you delete (going to the top of page 5) dealing with other factors involved in economic rent to follow the discussion of interest rates. Picking up on the first full paragraph on page 5, I would modify that sentence to read: "With respect to the specific issue of interest rates, it is obvious that Mr. Davidson failed to directly and precisely correlate the level of interest rate and its specific impact on gas supply." Then, I would follow up with the following language: "Interest rates should be viewed as one of the relevant factors involved in costs, along with the

availability of resources including capital, and the relative profitability of alternative investment opportunities, as it affects the price required to bring forth necessary supplies."

I would eliminate the discussion starting with the first full sentence on page 6, "Consequently the effect . . . ." until the conclusion of the section. These sentences erroneously convey the impression that high interest rates do not play an important role in development and exploratory activities.

In the section entitled, "THE RELIABILITY OF COST ESTIMATES," there is a discussion of the producers'

contention that it is difficult to determine unit costs of gas because it is a product produced under conditions of joint cost. My concern is that there appears to be a lack of comprehension concerning the distinction between joint and common costs. The discussion that follows distinguishing joint and common costs is provided to help you modify the material on the bottom of page 1 going over to page 2 of the above cited section.

Products produced under conditions of joint costs, such as beef and hides or cotton fiber and cotton seed, are produced in more or less fixed proportions. Therefore, you cannot vary the amount of one of the products without producing a corresponding proportion of the other product. From the standpoint of cost analysis, it can be seen that a joint cost is truly an unallocable cost.

Goods produced under conditions of common cost can be varied in amount even though the production process is indigenous to both. Your discussion with regard to wellhead production of gas in contrast to the production of goods by "many major American industrial corporations" should be developed along the lines that I have suggested. What I think you are trying to say is that the many diverse products utilizing raw materials of varying amounts result in the production of goods which in fact share in common costs such as overhead costs and the capital investment in plant and equipment. In a multiproduct firm it is unnecessary to allocate common costs, since it is only necessary to maximize the excess of sales revenue from each product over the directly assignable costs of each product. Associated natural

gas in fact is produced under conditions of joint costs similar to the examples given above (meat and hides) and

is distinguishable from the situation involving common costs.

As I read your analysis there appears to be confusion on these points and I think it behooves the staff to provide a clear and accurate analysis of these very important economic concepts. It may be advisable to omit any reference to the nature of costing and pricing in American industry generally in light of the difficulties associated with generalizations of this nature. I would be glad to discuss any of these matters with you prior to your finalization of the brief.

/s/ David S. Schwartz
DAVID S. SCHWARTZ

OEC
DSS:lmv
4/30/71

cc: Mr. Gooch
Mr. Forquer

[13,474]

Release of Intra-Agency Documents

[13,474]

EXHIBIT GG

May 14, 1971

Messrs. Gordon Gooch
Thomas J. Joyce

Assistant Chief, Office of Economics

Attached are the alternatives which were prepared in conformance with our discussion last evening with the Executive Director. The explanation provided on alternatives A and B are self-explanatory. Alternative C relates to a proposed errata going to the initial brief which I feel is necessary if alternative B (which represents the OGC-BNC position) is adopted.

DAVID S. SCHWARTZ

Attachment

[13,475]

ATTACHMENT A

This alternative is premised upon the OEC position that there be equal treatment of all Offices and [illegible] where there is a difference of position on various items.

The following changes should be added to the proposed effects to Staff Reply Brief in AR61-2 *et al.* and AR69-1.

3. A footnote should be added immediately following the heading at the top of page 39 to read as follows:

"[1] The views expressed at pages 39-41 of this brief dealing with the reliability of cost estimates are actually the views of the Office of the General Counsel and the Bureau of Natural Gas."

4. A footnote should be added immediately following the heading at the top of page 42 to read as follows:

"[1] The views expressed at pages 42-48 of this brief dealing with new gas well gas cost issues are actually the views of the Office of the General Counsel and the Bureau of Natural Gas."

[13,476]

ALTERNATIVE B

This alternative is premised upon the OGC-PMC position that these Bureaus represent the staff view and therefore OCG should except to any material that they do not agree with.

The following changes should be added to the proposed errata to Staff Reply Brief in AR61-2, *et al.* and AR69-1.

3. A footnote should be added immediately following the heading at the top of page 39 to read as follows:

   "[1] The office of Economics excepts to the views expressed at pages 39-41 of this brief dealing with the reliability of cost estimates."

4. A footnote should be added immediately following the heading at the top of page 42 to read as follows:

   "[1] The Office of Economics excepts to the views expressed at pages 42-48 of this brief dealing with new gas well gas cost issues."

[13,477]

BEFORE THE
FEDERAL POWER COMMISSION

Docket Nos. AR6102, *et al.* and AR69-1
Area Rate Proceedings

(Southern Louisiana Area)

ERRATA TO STAFF INITIAL BRIEF

The following changes should be made in the initial brief submitted by the staff in these consolidated proceedings.

1. The Office of Economics excepts to the following sentence on page 10 contained in the section of the brief dealing with the gas supply situation:

   "The staff's field audit served to verify the accuracy of the uncommitted reserves volumes as initially reported. (TR 5201-02)."

2. The Office of Economics excepts to the following sentences on page 19 contained in the section of the brief dealing with the availability of resources:

   "The evidence in the present record indicates that capital is now and will continue to be in short supply in relation to the capital requirements necessary to overcome the current gas supply crisis. (TR 1465, 6771). * * * The need for internally generated funds to finance an increased program of exploration must therefore be considered in the establishment of rates for gas already dedicated under long-term contracts."

[13,478]

3. The Office of Economics excepts to the following sentence on page 20 in the staff brief dealing with the response of gas supply to price:

   "It is also contrary to the facts, which show that the volume of uncommitted proved reserves held by producers is extremely small."

4. The Office of Economics excepts to the following sentences on pages 23 and 24 in the section of the staff brief dealing with the response of gas supply to price:

   "Price increases for gas will obviously make the drilling for gas more profitable and therefore more attractive. * * * If the requirements for wildcat acreage, equipment, labor, and capital are met, then an increase in gas price can be expected to have a direct, positive effect on the exploration effort, and the greater the price increase the greater will be the increase in the exploration effort, until the point of full resource utilization is reached. Beyond this point price increases will have little effect. (Ibid.)."

5. A footnote should be added immediately following the heading at the top of page 61 to read as follows:

   "[1] The Office of Economics excepts to the views expressed at pages 61-64 dealing with the American Gas Association reserves data."

6. A footnote should be added immediately following the heading at the top of page 66 to read as follows:

   "[1] The Office of Economics excepts to the views expressed at pages 66-80 dealing with the recent nationwide cost of nonassociated gas."

[13,479]

7. The Office of Economics excepts to the following sentences on page 95 dealing with the elimination of offshore price differentials:

"As noted earlier, the industry paid approximately $850 million for offshore leases in December 1970. The cost of carrying the investment in these leases for one year at 13 percent is $110 million. If this total cost is spread over the current offshore production volume of about 1.4 TGF, the unit cost result is almost 8 cents per Mcf. It is true that some leases involved will undoubtedly be transferred to producing accounts or written off during the first year. Nevertheless, this provides a striking measure of the cost of doing business in the offshore area.

"From the standpoint of both risk and cost, the evidence of record fully justifies elimination of offshore price differentials."

Respectfully submitted,

RICHARD V. MATTINGLY, JR.
Commission Staff Counsel

cc: All parties

Washington, D.C.
May , 1971

[13,480]

[Caption Omitted]

STAFF COUNSEL'S ANSWER IN OPPOSITION TO PETITION TO REOPEN PROCEEDINGS

By their petition filed on June 25, 1971, the American Public Gas Association and the Consumer Federation of America [1] seek a reopening of these proceedings for the purpose of taking additional evidence on certain allegations concerning gas reserve statistics appearing in the public press.

The staff strenuously opposes the reopening of these proceedings for further hearings. Petitioners raise no issues which would warrant such action. The alleged discrepancy in gas reserve estimates for the Federal Domain area offshore Southern Louisiana is a matter of public record, having been set forth by the staff's evidence submitted and cross examined during the course of hearings in these proceedings. The asserted discrepancy in reserves estimates was not seriously contested as an issue during the course of hearings, and was not even mentioned in any of the parties' initial briefs. The issue was raised only in the reply brief of the Municipal Distributors Group, of which the APGA is a member. The attempt by petitioners to raise the issue at this late date, not having submitted any evidence or argument thereon at the appropriate time despite ample opportunity to do so, clearly implies the lack of merit in their contentions.

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[1] The Consumer Federation of America is not a party to these proceedings and is therefore not entitled to file a petition to reopen the proceedings.

While certain parties including the petitioners will undoubtedly continue to express their doubts about the AGA data unless they are given an opportunity to personally analyze the actual core samples, electric logs, and other geological and geophysical data underlying every gas well in the United States, the evidence reveals that such an exhaustive and time consuming study is not necessary in order to determine the reliability of the reserves data. The relevant evidence of record shows clearly that the AGA annual reports which represent an established and widely accepted data series dating back to 1945, are the only reliable gas reserve and production statistics reported on a nationwide basis available from any source. More importantly, the reliability of the AGA reserve statistics is conclusively demonstrated by the independent reserve estimates submitted annually by natural gas pipelines subject to the Commission's jurisdiction pursuant to FPC Form 15.

In order to insure that the record in these proceedings was complete, the staff requested that a witness be made available to testify concerning the American Gas Association's annual publications of gas reserves and production statistics. The AGA did make available as a witness for this purpose Mr. John C. Jacobs, Jr., Chairman of the AGA's Committee on Natural Gas Reserves. Upon designation of Mr. Jacobs as a witness, the Commission's General Counsel, Mr. Gordon Gooch, transmitted to Mr. Jacobs a series of questions to be considered by Mr. Jacobs in preparing his testimony in these proceedings. These questions were transmitted to Mr. Jacobs through the AGA by letter dated March 16, 1970. Copies of the transmittal letter and questions were served by the staff on all parties and appear in the record at

TR 4766-71. Mr. Jacobs' testimony was filed on May 1, 1970. In his testimony Mr. Jacobs addressed himself fully to the questions propounded by Mr. Gooch. (TR 1411-51). Mr. Jacobs explained in minute detail the organizational structure, history, membership, policies, and working procedures of the AGA's Committee on Natural Gas Reserves and the various subcommittees assigned responsibility for the preparation of reserve statistics for specific geographical areas. He further testified as to how the reserve estimates are pre-

pared, by whom, and how they are reviewed at the subcommittee and Committee level. During the course of cross examination, Mr. Jacobs outlined the policies of the Committee with respect to the confidentiality of information. Briefly summarized, those policies prohibit the making public of data underlying the published reserve estimates. Confidentiality is required in order to insure the Committee's access to the producers' underlying basic reserve data.

In the staff's view the testimony of Mr. Jacobs establishes the reasonableness of the AGA reserves data. There is no credible basis whatsoever for any party to imply, in the face of Mr. Jacobs' testimony, that the AGA's reserve statistics are intentionally falsified or distorted simply to mislead the public as to the reserves inventory of the nation or in order to obtain favorable rulings from the Federal Power Commission. Any such allegations, direct or implied, are totally without the support of any evidence, and should be categorically rejected by the Commission.

Perhaps more important than the testimony of Mr. Jacobs, at least from the standpoint of statistical analy-

sis and documentation, is the fact that the reliability of the nationwide AGA reserves estimates are confirmed by the Form 15 reserve estimates reported to the Commission. The Form 15 reserves data are highly significant because they represent over 70 percent of all proved reserve of natural gas in the United States excluding Alaska, and thus serve as a check against the AGA reserve estimates to the extent of a sample in excess of 70 percent. While discrepancies do exist within specific gas supply areas, notably the Federal Domain Area Offshore Southern Louisiana and in the San Juan Basin, nevertheless on a nationwide basis the gas reserves data from Form 15 and the AGA are mutually confirmatory as to accuracy and reliability over the entire period for which comparable data are available for purposes of comparison.

The instant petition and the newspaper articles to which it refers rely heavily on a difference in proved reserves estimates for the Federal Domain Area Offshore Southern Louisiana. The AGA Committee reported that as of year end

[13,483]

1969 proved reserves in the area totalled 24 trillion cubic feet. (Exh. 8A, Sheet 2). Based primarily on Form 15 reserves plus certain additional data reported pursuant to special questionnaires, the staff showed year end 1969 reserves to be 34 trillion cubic feet. (Exh. 31A, Sch. 1). It should be noted initially that a significant portion of this difference is due to the use of different methods of allocating reserves in 12 fields which overlap Offshore Zones 1 and 2. When these allocations are made on a uniform basis, the actual difference is 8 rather than 10 trillion cubic feet. The difference in the offshore reserve

estimates is clearly reflected in the applicable R/P ratios. The R/P ratio for the Federal Domain area as of year end 1969 based on the staff's data (Exh. 31A) is over 20 to 1. Based on AGA data the ratio is only 13.4 to 1. It should be noted that this difference has existed to a greater or lesser degree since at least 1963, the first year for which comparable data are available. Reference to Appendix A shows that the offshore R/P ratios based on Form 15 data have been consistently and substantially higher than those derived from AGA data. This indicates clearly that the difference in the offshore reserve estimates was not contrived by a manipulation of data as a result of or in reaction to the Commission program of area rate regulation, since the initial Commission decision in *Permian* was not issued until mid 1965.

The difference in the Federal Domain reserve estimates must be recognized for what it is, that being a difference of opinion among experts as to the volume of proved reserves underlying the offshore leases. This difference should not be surprising where it occurs in a relatively new and growing gas supply area such as offshore Southern Louisiana, where a significant amount of gas acreage is in a relatively early stage of development. The estimation of reserves in such situations is primarily a matter of expert judgment rather than precise quantification. As the leases are drilled and produced, the additional wells and greater production experience provide a more definitive basis for reserves calculations. In these circumstances it is unrealistic to expect or require Form 15 and AGA reserve estimates to coincide in all cases,

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particularly in provinces such as the more remote offshore areas. It would be a serious mistake for the Com-

mission to reopen the record in order to attempt to determine whether proved reserves in the Federal Domain on December 31, 1969 were 24 or 34 TCF. The result would only be to embroil the parties and the Commission in an unresolvable dispute and further delay these proceedings beyond the point of no return. Precise quantification of the offshore reserves even if possible is not required. The existence of a gas supply shortage not only in Southern Louisiana but also in the nation's other major gas supply areas is demonstrated overwhelmingly by the evidence in these proceedings. Such evidence has been duly noted and argued in brief, and will not be repeated here. Whether offshore reserves were 24 or 34 trillion cubic feet in 1969 is essentially irrelevant to the gas supply issue since in either case the volumes are for the most part already dedicated to interstate pipelines, and thus do not represent available supply. As of December 31, 1969, the volume of gas available for sale in the Federal Domain area was only about one trillion cubic feet. (Exh. 31A, Sch. 1). The belabored 8 TCF of offshore reserves represents a difference of opinion between the pipelines and the AGA Reserves Committee as to the volume of proved gas reserves in the Federal Domain as of December 31, 1969. The estimation of reserves is not and cannot be made an exact science, and an allowance must be made for differences of opinion between qualified experts. Based on the evidence, the expertise of the AGA Reserves Committee must be conceded, as well as the expertise of those responsible for preparing responses to Form 15. The Commission should therefore given consideration to booth estimates to the extent necessary in promulgating its findings and order in these proceedings.

A more serious aspect of the difference in offshore reserve estimates is the implication that the AGA re-

serves may be understated in other areas or most importantly on a nationwide basis. However such is not the case, as can be demonstrated by reference to the Form 15 reserves data. As noted above, the Form 15 R/P ratios for the Federal Domain area have been consistently higher than the same ratios derived from AGA data. However, on a nationwide basis, this

difference largely disappears. As of year end 1969, for example, the nationwide R/P ratio based on Form 15 data was 14 to 1, while the R/P ratio based on AGA data was about 13 to 1. If the Federal Domain area is excluded, the remaining nationwide R/P ratios become 13.4 and 13.1 for the Form 15 and AGA respectively. The various ratios for 1969 and prior years are set forth in Appendix A. These data indicate clearly that on a nationwide basis there is no substantial difference in reserve estimation as between the two data sources, Form 15 and the AGA. Since production volumes represent actually measured quantities of gas, concerning which there is no dispute, it follows that if the AGA were to substantially understate reserves, it would necessarily and unavoidably result in a decline in the AGA reserves to production ratio relative to Form 15 R/P ratios. This has not taken place. The confirmatory nature of the Form 15 and AGA reserves data can be seen most clearly by referring to the charts in Appendix B, which show graphically the reserves to production ratios calculated from the two sources. The correlation between AGA and Form 15 reserves and production statistics is obvious. These data show that on a nationwide basis both the pipelines and the AGA evaluate proved reserves on a consistent, almost consonant basis. Both sources show

that on a nationwide basis as of year end 1969, between 13 and 14 Mcf of proved reserves remain in place for each Mcf of gas produced during 1969. These data indicate the AGA has not changed its method of reserves estimation over the years and that there has been no observable trend toward the understatement of proved reserves by the AGA in recent years. It might also be noted that these charts clearly reflect the seriously deteriorating gas supply situation in the United States.

It should be noted that while the above data serve to dispel any reasonable doubt concerning the underestimation of reserves, they do not allow for the possible failure by producers to report reserves at all. However, it is clear from the testimony of Mr. Jacobs that it is virtually impossible for producers to keep their discoveries secret, and that producers seldom and only in the most limited circumstances withhold data from the AGA. (TR 4572, 4875, 4591,

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4713). The evidence provides absolutely no basis for arguing the AGA reserves figures are understated to any significant degree by the failure of producers to provide the AGA with necessary information. To the contrary, the evidence shows that the problem of confidentiality of data as between producers and the AGA does not significantly affect the reliability of the AGA data. (TR 4632).

The next question which requires consideration is whether the discrepancy of 8 TCF in the offshore Southern Louisiana area has any effect on the cost estimates pursuant to the commission's established costing methods. There are several reasons why the discrepancy has no effect on the cost estimates. First, year end reserves

are not used for costing purposes. Instead costs are spread over annual gross reserve additions, consisting of AGA categories, new fields, new reservoirs, extensions and revisions. Second, new gas costs are determined on a nationwide rather than an area basis. As we have shown above, the nationwide AGA reserve estimates are reliable, and are corroborated in a conclusive manner by Form 15 reserves data. These same data confirm the reliability of the AGA data for costing purposes. In the annual AGA reports of gas reserve and production statistics, the net change in year end reserves from one year to the next represents essentially the difference between gross reserve additions and production during the year.[2] For example if reserves at year end 1968 were 300 trillion cubic feet, and year end 1969 reserves were 290 trillion cubic feet, then it is known that reserve additions reported by the AGA during 1969 must amount in total to 10 trillion cubic feet. (300—20 = 280; 290—280 = 10). Where production volumes are known and undisputed, and where, as we have shown, the Form 15 and the AGA reserves to production ratios continue to maintain a close statistical correlation, it then follows that the gross additions are also mutually consistent as between the AGA and Form 15. If the AGA by design or otherwise were to substantially understate reserve additions,

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then it is inevitable as a matter of mathematics that the AGA R/P ratios would necessarily decline in relation to the Form 15 R/P ratios. Reference to Appendix B shows there has been no such decline.

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[2] For purposes of this explanation changes in underground storage volumes are ignored as immaterial.

Other Form 15 data confirm the reliability of the AGA's reported reserve additions. As shown by Appendix C, AGA and Form 15 year end reserves, reserve additions, and production have maintained a proportional relationship, with Form 15 accounting for 68 percent of total reserve additions during the period 1964-69. Over the same period, Form 15 accounted for about 70 percent of reserves, and about 66 percent of production. These are extremely favorable comparisons because they again demonstrate Form 15 and AGA reserves, production, and reserve additions data to be fully consistent and corrobative on a nationwide basis.

Finally reference is made to the testimony of Mr. John Jacobs, who was asked about this matter on cross examination. Mr. Jacobs testified that under the procedures of the AGA, every Mcf of gas produced from a reservoir during its entire life must be accounted for as a gross reserve addition in one of the four categories designated by the AGA as extensions, revisions, new fields, or new reservoirs. (TR 4648-49; 4655-56). This being the case, there can be no understatement of costs using reserve additions as reported by the AGA.

It seems clear in light of the above considerations that there is no merit whatever to the contentions of the petitioners. It is difficult to imagine what more the staff or the parties could have done or could do now to provide a more adequate record on supply, demand, cost or other issues. The staff feels the issues raised by petitioners are essentially contrived, and represent nothing more than an attempt by them to further delay these proceedings and thereby frustrate the Commission in its efforts to carry out its regulatory responsibilities. These proceedings have been pending for over 10 years and there is absolutely nothing to be gained by reopening the proceedings for further hearings. As demonstrated

overwhelmingly by the evidence, the UDC settlement proposal represents a reasonable resolution of the issues herein in the public interest. The record continues to fully support the settlement terms and conditions.

Wherefore the staff urges the Commission to deny petitioners' request to reopen these proceedings for the reasons above set forth.

Respectfully submitted,

/s/ Richard V. Mattingly, Jr.
RICHARD V. MATTINGLY, JR.
Commission Staff Counsel

Washington, D. C.
July 6, 1971

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APPENDIX A

AGA RESERVES, PRODUCTION AND R/P RATIOS
(Billion Mcf at 14.73 psia @ 60° F)

Year	Year End Reserves	Annual Production	R/P Ratio
	Total U.S.		
1963	274.5[1]	14.6[1]	18.8-1
1964	279.4	15.3	18.2-1
1965	284.5	16.2	17.5-1
1966	286.4	17.5	16.4-1
1967	289.3	18.4	15.8-1
1968	282.1	19.3	14.6-1
1969	269.9	20.6	13.1-1
	Louisiana Federal Domain		
1963	11.4[2]	0.6[2]	19.0-1
1964	14.1	0.7	20.1-1
1965	16.9	0.7	24.1-1
1966	19.4	0.9	21.6-1
1967	22.3	1.2	18.6-1
1968	24.2	1.5	16.1-1
1969	24.1	1.8	13.4-1
	Total U.S. Minus Louisiana Federal Domain		
1963	263.1	14.0	18.8-1
1964	265.3	14.6	18.2-1
1965	267.6	15.5	17.3-1
1966	267.0	16.6	16.1-1
1967	267.0	17.2	15.5-1
1968	257.9	17.8	14.5-1
1969	245.8	18.8	13.1-1

[1] Annual AGA Reports 1963-69. Excludes Alaska.

[2] Exhibit 8A, Sheets 1 and 2.

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FORM 15 RESERVES, PRODUCTION, AND R/P RATIOS
(Billion Mcf at 14.73 psia @ 60° F)

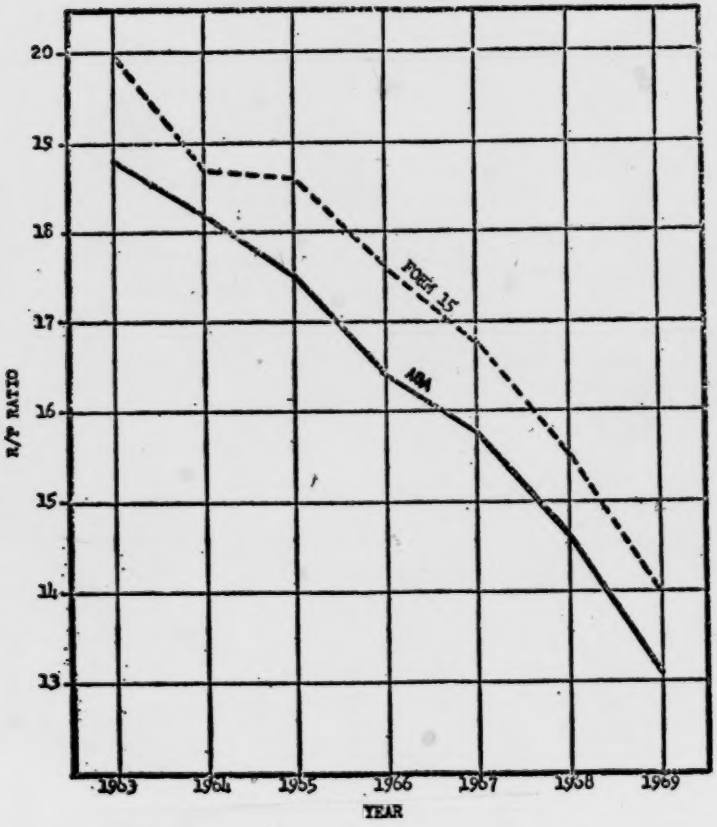
Year	Year End Reserves	Annual Production	R/P Ratio
	Total U.S.		
1963	192.0[1]	9.6[1]	20.0-1
1964	192.5	10.3	18.7-1
1965	194.8	10.5	18.6-1
1966	198.4	11.3	17.6-1
1967	202.1	12.0	16.8-1
1968	198.7	12.8	15.5-1
1969	191.5	13.7	14.0-1
	Louisiana Federal Domain		
1963	14.0[2]	0.5[2]	28.0-1
1964	14.6	0.6	24.3-1
1965	17.1	0.6	28.5-1
1966	18.9	0.8	23.6-1
1967	21.2	1.0	21.2-1
1968	23.7	1.1	21.5-1
1969	27.7	1.5	18.5-1
	Total U.S. Minus Louisiana Federal Domain		
1963	178.0	9.1	19.6-1
1964	177.9	9.7	18.3-1
1965	177.7	9.9	17.9-1
1966	179.5	10.5	17.1-1
1967	180.9	11.0	16.4-1
1968	175.0	11.7	15.0-1
1969	163.8	12.2	13.4-1

[1] FPC Publication entitled "The Gas Supplies of Interstate Natural Gas Pipeline Companies 1969".

[2] Exhibit 31A, page 2.

APPENDIX B

COMPARISON OF R/P RATIOS FORM 15 & AGA
(1963-1969)
TOTAL U.S. MINUS ALASKA



Source: Appendix A

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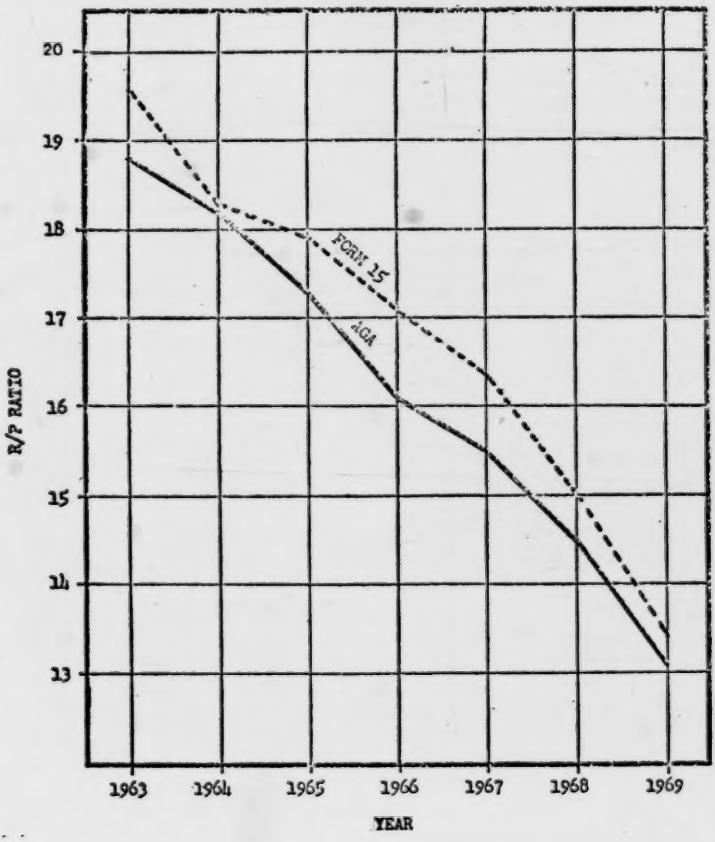
COMPARISON OF R/P RATIOS FORM 15 & AGA
(1963-1969)
TOTAL U.S. MINUS ALASKA AND
OFFSHORE LOUISIANA (ZONES 2, 3, 4)



Source: Appendix A

APPENDIX C

GROSS RESERVE ADDITIONS TOTAL U.S.
(Excluding Alaska)

(Thousand Mcf at 14.73 psia @ 60° F)

	AGA [1]	Form 15 [2]	Form 15 as a % of AGA
1. 1969 Year-end Reserves	269,906,692	191,458,777	70.9
2. 1963 Year-end Reserves	274,470,509	192,084,677	70.0
3. Nett Change	(4,563,817)	(625,900)	
4. Cumulative Production (1964-1969)	107,388,978	70,651,826	65.8
5. Gross Reserve Additions (1964-1969)	102,825,161	70,025,926	68.1

[1] AGA Annual Report; Vol. 24, May 1970, pp. 126, 131, 221.

[2] FPC Publication entitled "The Gas Supplies of the Interstate Natural Gas Pipeline Companies 1969", p. 12.

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[Caption Omitted]

UNITED DISTRIBUTION COMPANIES' RESPONSE IN OPPOSITION TO PETITION TO REOPEN PROCEEDINGS

UNITED DISTRIBUTION COMPANIES (hereinafter UDC), pursuant to Section 1.33(a)(2) of the Commission's Rules of Practice and Procedure, strongly oppose the Petition of the American Public Gas Association and the Consumer Federation of America (hereinafter Petitioners) to reopen the above captioned proceedings for the purpose of a full evidentiary consideration of "studies, letters and memos" which are referred to in two *Washington Post* articles attributed to Jack Anderson.

Petitioners have not demonstrated that the gutter hearsay contained in the Anderson articles is a basis to reopen this proceeding. The articles have no evidentiary weight but merely represent irresponsible journalistic summaries of alleged

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documents allegedly written by a third party. Reliance on such material would be reliance, at best, on double hearsay. The dignity of the Administrative process must not be allowed to be demeaned and disrupted by such yellow journalism.

Assuming *arguendo* that such "studies, letters and memos" do in fact exist, their inclusion in this record would be of no probative value. A competent staff witness, who is a geologist and a member of the Bureau of Natural Gas, already testified, without equivocation, that

no substantial gas reserves have been or are being held off the market. It is of significance that this testimony was on behalf of the Bureau delegated the responsibility to make such a determination. The Office of Economics had no such responsibility, competence, nor the services of a geologist. To give credence to the alleged study of a single unqualified individual, who may not have exercised the professional objectivity and expertise of a Bureau in the conduct of its official duty, would only encourage intrafratercine conduct among members of the Staff.

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No reason exists to reopen this proceeding especially on the frivolous and irresponsible basis urged by the Petitioners. To do so would establish a dangerous precedent of trying matters of national concern in the forum of gossip column.

WHEREFORE, for these reasons the Petition to Reopen Proceedings must be denied.

Respectfully submitted,

UNITED DISTRIBUTION COMPANIES

/s/ Tilford A. Jones
TILFORD A. JONES

/s/ William A. Mogel
WILLIAM A. MOGEL
Its Attorneys
7316 Wisconsin Avenue
Bethesda, Maryland

July 6, 1971

[13,500]

[Caption Omitted]

ANSWER OF INDICATED PRODUCER RESPONDENTS TO PETITION OF AMERICAN PUBLIC GAS ASSOCIATION AND THE CONSUMER FEDERATION OF AMERICA TO REOPEN PROCEEDINGS

Come now the undersigned producers and respond, pursuant to Section 1.33(a)(2) of the Commission's Rules of Practice and Procedure, to the Petition filed by the American Public Gas Association (APGA) and the Consumer Federation of America[1] to reopen the record in the captioned proceedings based on certain articles appearing in the Washington Post dated June 14 and June 15, 1971 by columnist Jack Anderson. The undersigned submit that the Petition should be denied for the reasons hereinafter set forth.

I.

The Subject Matter of the Allegations Upon Which the Petition is Based Has Already Been Thoroughly Explored On This Record

The articles attached as Appendix A to the Petition purport to be based on an alleged "discrepancy" in reserves

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estimates discussed in internal Staff memoranda in the Commission's files. Reference is specifically made to an estimate made by the Reserves Committee of the Ameri-

[1] The Consumer Federation of America neither sought nor was granted intervention to participate in this proceeding as a party. Its filing of comments in Docket R-389A does not entitle it to participation here.

can Gas Association (AGA) of "one part of the Louisiana reserves to be 24 trillion cubic feet" while "the FPC's own experts after careful calculation came up with a 34 trillion cubic feet figure."

Since the first area rate proceeding the Commission has had presented to it questions concerning reserves estimates from various sources, including producers, pipelines and the AGA (see *e.g.* Docket No. AR61-1, Exhibits 177 and 195). After considering these disputed issues the Commission in a decision written by then Chairman Joseph C. Swidler determined in the *Permian Basin Area Rate Proceeding* to utilize AGA reserves estimates in the estimation of new gas-well gas costs upon which ceiling rates were based (34 FPC at 197). The controversies over reserves estimates were continued into the *Southern Louisiana Area Rate Proceeding*, Docket No. AR61-2. In Opinion No. 546, the Commission again, in an opinion written by then Chairman Lee C. White, determined to base its estimate of new gas-well costs on AGA reserves data.[2]

In the instant proceedings extensive prehearing conferences were held during 1969 considering in depth questions of reserves data to be furnished for use in the proceedings.

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Representatives of APGA fully participated in those conferences. As a result of such conferences, parties were unable to agree on data to be collected and used. After oral arguments on data questions, the Commission issued its order of December 15, 1969, stating,

> "The parties to the prehearing conference previously held in AR69-1 were unable to reach agreement on

[2] These disputed issues are discussed in Initial Brief of Indicated Respondents, Docket No. AR61-2, pp. 76-80.

> the issue of collection of data. We now proceed to a resolution of the disputed matters. * * * [the following specific data will be required] Published data [which included AGA reserves data] used in determining the nationwide current cost of non-associated gas, supplemented by such data to be furnished by the major respondents as were developed by questionnaire data in Docket No. AR61-2." (42 FPC 1110, 1112)

Far from being "locked from public view," and now "disclosed" by Anderson, the data referred to in the Petition were reflected in exhibits in the AR69-1 record presented by Commission Staff Witnesses Zabel, Mangen and Lindvall.[3] Specifically, the 24 trillion cubic feet reserves figures taken from AGA reports appears on Exhibit 8-A, sponsored by Staff Witness Lindvall, Sheet 2, Line 5. The 34 trillion cubic feet reserves figure taken primarily from the pipeline Form 15 reports appears in Exhibit 31-A, Schedule 1, Line 20, Column (h), sponsored by Staff Witness Zabel. These

two reserves figures were brought together on the record during the cross-examination of Staff Witness Zabel (42:5486-88). Mr. William T. Miller, representing the Municipal Distributors Group, participated in this cross-examination (42:5401; 5509).[4]

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[3] Lindvall—14:1889, Exhs. 8, 8-A and 8-B; Mangen—5190-5204; 42:5422-69; Zabel 5205-07-A, 5486-88; 40:5185-88, Exhs. 31 and 31-A.

[4] In Docket AR69-1 an Initial Brief was filed on behalf of the Municipal Distributors Group (MDG). At page 1, footnote 1, it is stated that The American Public Association is a part of the MDG.

The Commission's Office of Economics participated fully in the proceeding, principally through its Chief Econometrician, Dr. J. Daniel Khazzoom. In his testimony Dr. Khazzoom undertook to raise questions concerning AGA reserves data from both a conceptual and an accounting point of view (Exh. No. 46, App. C). While the undersigned dispute that the questions raised by Dr. Khazzoom are substantial, nevertheless they were raised in the hearing.

A complete and adequate record has been made on the questions raised by APGA; therefore, the requirements of *Scenic Hudson Preservation Conf.* v. *FPC*, 354 F. 2d 608 (D.C. Cir. 1965; *cert. denied*, 384 U.S. 941), have been met.

II.

The Allegations Upon Which The Petition Are Based Are Factually Incorrect

The allegations made in the Appendix to the Petition are incorrect—that ". . . the FPC's own experts after careful calculation, came up with a 34 trillion figure." (Petition, p. 2)

The 34 trillion cubic feet figure was not "carefully calculated" but rather was compiled by FPC Staff members from a total of (i) "recoverable" reserves annually submitted by pipeline companies in Form 15 reports to the Commission, (ii) "recoverable" reserves collected specifically for this hearing by a separate questionnaire to the individual pipepine companies to show gas reserves dedicated to the pipelines which had not yet been reported in their Form 15 reports, and (iii) uncommitted "proved" reserves supplied by individual producer respondents in

response to a Commission approved questionnaire in this hearing. The AGA Reserves Committee figures are "proved" reserves and are a part of a standard statistical series which has been compiled annually by the AGA for over 25 years (12:1413).[5]

The Petition refers to "two crucial sets of industry data on gas reserves which 'can hardly be said to match each other'" (p. 2). This statement assumes that the two sets of data should match. Such assumption is without foundation because the reserves estimates contained in pipeline Form 15 reports and AGA reports are submitted under different definitions and standards. The reserves reported by AGA are on the basis of "proved" gas reserves which are defined as:

> ". . . the current estimated quantity of natural gas and natural gas liquids which

> analysis of geologic and engineering data demonstrate with reasonable certainty to be recoverable in the future from known oil and gas reservoirs under existing economic and operating conditions. Reservoirs are considered proved that have demonstrated the ability to produce by either actual production or conclusive formation tests." (Exh. 49, p. 103)[6]

The 34 trillion cubic feet reserves figure, as discussed above, is a mixture of "proved" reserves reported by

[5] Contrary to the allegations in the Petition, the AGA is primarily a gas distributor organization and not a producer spokesman as alleged (12:1414).

[6] This definition was expanded on at length by the Chairman of the AGA Committee on Natural Gas Reserves, who appeared as a witness in these proceedings (12:1411, *et seq.*).

producers under the above definition and "recoverable" reserves reported by pipelines. The pipelines are instructed to report "recoverable" reserves under the following definition:

> "As used in this report and defined in Form 15, dedicated reserves are the volume of remaining recoverable, saleable gas reserves committed to, controlled by, or possessed by the reporting pipeline company and which are used for acts and services for which both the seller and the company have received certificate authorization from the Federal Power Commission." (The Gas Supplies of Interstate Natural Gas Pipeline Companies, 1969, FPC S-207, App. A, p. 44)

Under the latter definition it is apparent that each reporting pipeline is free to use its own definition of gas reserves which it deems to be recoverable. Staff Witness Zabel has

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testified in Docket No. AR70-1:

> ". . . the pipeline companies filing Form 15 calculate reserves in accordance with the standards set by the individual company. This can cause a difference in reserve estimates even though both the AGA Committee and the pipeline company personnel operate within the bounds of accepted geological and reservoir engineering principles." (p. 8)

To the extent that reserves estimates are reflected in Form 15 reports under individual company standards which are less strict than the definition of "proved" reserves, the Form 15 data include a portion of "probable"

reserves which are estimated and reported separately by the Potential Gas Committee.[7] (See *e.g.* 48:6368)

The United Distribution Companies submitted the Chairman of the AGA Committee on Natural Gas Reserves, Mr. Jacobs,

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who testified in detail as to the AGA organization and reserves estimating procedures and standards. He was cross-examined extensively by, among others, the attorneys for the APGA (34:4562-35:4771). Mr. Jacobs is also Senior Vice President of a major pipeline company which files Form 15 reports. Ample opportunity was again afforded all parties to explore on the record or in brief any purported "discrepancy" between Form 15 reserves estimates and AGA estimates. No such attempt was made.

Differences in the two sets of industry data also result from other factors. The reserves estimates in question are for the Federal Domain, Offshore Southern Louisiana. The location of gas fields do not neatly follow political boundaries so a division of reserves estimates is necessary in fields straddling the line between

[7] The simplistic argument in the Petition that understatement of reserves would result in higher prices ignores the requirement that the nature of the expenditure must be matched with the nature of the reserves estimate. As an example of the difficulties which would be encountered in utilizing reserves additions data which reflect to any extent *unproved* reserves, it would be necessary to also utilize forecasts of additional matching costs of exploring for, drilling and developing that portion of the estimated reserve which was not proved. The Commission has heretofore rejected the use of costing methods requiring such forecasts as being excessively speculative. See *e.g.* Continental Oil Co. 27 FPC 106-07. Such a requirement would move the cost estimation procedure from the current realm of imprecision to the realm of pure fiction.

state and federal lands. On May 18, 1970, the Commission Staff Counsel served on all parties a letter from Mr. Jacobs, discussing the situation where various gas fields were located on each side of the border line between Zone 1 (Onshore Louisiana) and Zone 2 (Offshore Louisiana) and noting that in 1969 the AGA Reserves Committee had assigned reserves in these fields to Zone 1 (Onshore) in the amount of 4.1 trillion cubic feet, and assigned to Zone 2 (Offshore) only 1.5 trillion cubic feet. In contrast, Staff Witness Zabel (who compiled the data totaling 34 trillion cubic feet) assigned reserves to the respective areas on the basis of proportions of cumulative production reported on each side of the boundary (12:1855).

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After hearing extensive arguments, the Presiding Examiner ruled that AGA reserves data were admissible (30:4761) over the objection of the attorneys for the APGA. In his ruling of admissibility the Examiner stated, *inter alia*, (i) that this data is used by government agencies, including the Bureau of Mines of the Department of Interior in its Minerals Yearbook, (ii) the same AGA reserves statistics have been utilized by the Commission itself in its *Permian* and *First Southern Louisiana* decisions in estimating the nationwide cost of new gas-well gas, and (iii) that the use of AGA data was approved by the Supreme Court in *Permian*.[8]

Reserves estimates by individual producers based on the AGA definition of proved reserves were carefully explored by the Commission Staff through its auditing

[8] In Opinion No. 595, Docket Nos. AR64-2, *et al.*, the Commission used AGA data not only for nationwide new gas-well gas cost estimates but also for supply indicators. See *e.g.*, mimeo p. 12.

procedures. A team of five Staff engineers and geologists conducted an extensive audit of the producers' records, and made its own independent reserves estimates. The Staff estimates were about *2 percent lower* than the producer estimates (40:5201). These results were subjected to cross-examination (42:5422-5520).

To reopen this record and permit a rehash of the same subject would merely delay the Commission's decision, and would not contribute anything further to the record.

[13,509]

III.

The Existence Of A Gas Supply Shortage Is Established By Extensive Data in Addition To Reserves Estimates

As the Commission is well aware, an estimate of remaining gas reserves, however defined, does not in and of itself establish the existence or non-existence of a gas supply shortage. Evidence relevant to ascertaining whether a supply shortage exists must include, among others, the following:

1. current and prospective levels of demand for natural gas,

2. current and prospective levels of deliverability of reserves attached to interstate pipelines.[9]

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[9] The Pipeline Group presented a deliverability study based on AGA reserves estimates for Offshore Louisiana (Exh. 29) and Staff presented a similar study based on Form 15 reserves reports (Exh. 32). The results of both were roughly comparable, showing an imminent deliverability crisis.

3. refusals by gas distributors or pipelines to attach new customers or increase service to existing customers,[10]

4. curtailments of interruptible customers during heating seasons for reasons other than limitation of system capacity of force majeure,[11]

[13,510]

5. curtailments during non-heating season in order to assure filling of storage,[12]

6. decline in construction of new pipeline capacity during periods of increasing demand,

7. declines in applications by independent producers for certificates to sell new gas supplies in interstate commerce,

8. existence and extent of emergency purchases or emergency exchanges between systems,

9. initiation of projects for importation of LNG for base load uses,[13]

10. initiation of projects for reforming hydrocarbon feedstocks into natural gas supplements,

11. applications by pipelines for increased rates to reflect increased amortization rates,

12. pipeline statements in proceedings and Form 15 reports as to their inability to procure gas supplies.

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[10] See Transwestern Pipeline Company, Docket No. RP70-17, Opinion 597, issued June 17, 1971, mimeo p. 11.

[11] See, in general, responses of pipeline companies in accordance with Order No. 431 in Docket No. 418.

[12] See, *e.g.*, Natural Gas Pipeline Company of America, Docket No. RP70-42, and United Gas Pipeline Company, Docket No. RP-71-29.

[13] See, *e.g.*, Columbia LNG Corporation, *et al.*, Docket No. CP71-68, *et al.*

Under all of the above indicators and on the basis of extensive record evidence an existence of an actual gas supply shortage is well known to the Commission.[14] All of these indicators are independent of any estimate of total proved reserves.

IV.

The Freedom of Information Act Does Not Require Reopening to Consider Internal Staff Memoranda

The Petition alleges that APGA is entitled to the "studies, memos and letters" under the Freedom of Information Act (p. 4) and that the record should be reopened to receive such materials in evidence. To admit such materials into evidence would be contrary to the ruling of the Court of Appeals for the Second Circuit (the same court that decided *Scenic Hudson*) in *International Paper Company* v. *F.P.C.*, 438 F.2d 1349, 1358-59 (1971):

> "The views of individual members of the Commission Staff *are not legally germane*, either individually or collectively to the actual making of final orders. It could be grossly misleading, when applied to the ultimate findings and conclusions reached by the FPC as a whole, because at best they are only advisory in character. To allow disclosure

> of these documents would interfere with two important policy considerations on which Section 552(b)

[14] These and other matters with reference to the gas supply issues were extensively briefed during the course of the proceeding. See Initial Brief of Indicated Respondents, pp. 38-82.

(5) is based: Encouraging full and candid intra-agency discussion, and shielding from disclosure the mental processes of the executive and administrative officers." (emphasis supplied)

It is apparent that the Commission is not obligated to reopen the proceeding to receive in evidence matters which are not "legally germane."

V.

Conclusion

APGA participated fully in the hearing phase of these proceedings where every question raised in the Petition was considered on the record. Having completely failed to prove their charges of impropriety in the reserves estimates in the hearing, Petitioners are now attempting to re-litigate the same issue based on unsupported allegations in a newspaper column. The Commission should reject this attempt as destructive of the orderly hearing process, and not delay further its decision determining just and reasonable rates for the Southern Louisiana Area.

Respectfully submitted,

HUMBLE OIL & REFINING COMPANY

By /s/ John R. Rebman
JOHN R. REBMAN
Attorney for Humble Oil & Refining Company
P. O. Box 2180
Houston, Texas 77001

July 2, 1971

And on behalf of:

AMERADA HESS CORPORATION
ATLANTIC RICHFIELD COMPANY
AMOCO PRODUCTION COMPANY
BRADCO OIL & GAS CO.
BRADCO PROPERTIES, INC.
E. COCKRELL, JR.
FREEPORT OIL COMPANY, A DIVISION OF FREEPORT MINERALS COMPANY
LAKE WASHINGTON INC.
JOHN W. MECOM
U. S. OIL OF LOUISIANA INC.
U. S. OIL OF LOUISIANA, LTD.
CITIES SERVICE OIL COMPANY
CONTINENTAL OIL COMPANY
GULF OIL CORPORATION
HUNT OIL COMPANY
HASSIE HUNT TRUST
H. L. HUNT
W. H. HUNT
LAMAR HUNT
CAROLINE HUNT SANDS
WILLIAM HERBERT HUNT TRUST ESTATE
CLAUDE M. LANGTON, TRUSTEE SECURE TRUSTS
HUNT INDUSTRIES
LYDA HUNT-CAROLINE TRUSTS
LYDA HUNT-BUNKER TRUSTS
LYDA HUNT-LAMAR TRUSTS
LYDA HUNT-HERBERT TRUSTS
LYDA HUNT-MARGARET TRUSTS
PLACID OIL COMPANY
MARATHON OIL COMPANY
MOBIL OIL CORPORATION
PHILLIPS PETROLEUM COMPANY
SHELL OIL COMPANY
TENNECO OIL COMPANY
TEXACO INC.
UNION OIL COMPANY OF CALIFORNIA

[13,516]

[Caption Omitted]

ANSWER OF ASSOCIATED GAS DISTRIBUTORS TO PETITION TO REOPEN PROCEEDINGS

Pursuant to Section 1.33 of the Commission's Rules, Associated Gas Distributors (AGD) submits the following Answer in opposition to the Petition to Reopen Proceedings filed herein by American Public Gas Association and the Consumer Federation of America.

I

The Petition to Reopen should be denied on the ground that the alleged "new evidence" sought to be introduced is already part of this record. The "new facts" recited in the Petition are two estimates of Louisiana reserves, i.e., an estimate of 24 trillion cubic feet of gas prepared by American Gas Association and an estimate of 34 trillion cubic feet prepared by the Commission Staff. Exhibit 8-A, sponsored by Staff witness Lindvall, includes the AGA estimate of 24 trillion cubic feet of

[13,517]

gas reserves and indicates that this figure represents the AGA estimate of proved reserves at year end 1969 in Zones 2, 3 and 4 of the Louisiana offshore area.[1] Staff Exhibit No. 31-A, sponsored by witness Zabel, includes the reserve estimate of 34 trillion cubic feet[2] and indicates that this figure represents the year end 1969 volume of gas reserves in the same Zones 2, 3 and 4 as reported in FPC Form 15 Reports plus additional re-

[1] The exact figure shown at sheet 2 of Exhibit 8-A, is 24,102,454 MMcf.

[2] The exact figure shown at Schedule 1, Line 20 of Exhibit 31-A is 34,138,851 MMcf.

serves reported in several miscellaneous categories[3] by pipelines and producers. Each of the above-mentioned exhibits was received in evidence[4] and the sponsoring witnesses were cross-examined by various parties, including APGA's counsel.[5] It is therefore

[13,518]

clear that the reserve estimates cited in the Petition are not new facts but are facts of record in this case and that the parties have had ample opportunity to compare and evaluate these reserve estimates through evidence and/or arguments.

II

WHEREFORE, for the foregoing reasons, AGD requests that the Petition to Reopen be denied.

Respectfully submitted,

ASSOCIATED GAS DISTRIBUTORS

By /s/ Frederick Moring
JOHN E. HOLTZINGER, JR.
FREDERICK MORING
Their Attorneys

MORGAN, LEWIS & BOCKIUS
1140 Connecticut Avenue, N. W.
Washington, D. C. 20036
Of Counsel

July 6, 1971

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[3] These categories are listed in column (c) of Schedule 1, Exhibit 31-A and include (a) reserves dedicated—not in Form 15, (b) reserves for direct industrial sales, (c) reserves for fuel, feedstock and company use, (d) reserves held for warranty and (e) reserves available for sale.

[4] Exhibit 8-A was received at Tr. 15:2203; Exhibit 31-A was received at Tr. 41:5349.

[5] See Tr. 15:2203-2238 and Tr. 41:5350-5379 and Tr. 42:5485-5520.

[13,521]

[Caption Omitted]

ANSWER AND OBJECTION OF PIPELINE PURCHASER GROUP TO PETITION FOR REOPENING OF THESE PROCEEDINGS

The Pipeline Purchaser Group hereby answers and objects to the petition filed by the American Public Gas Association and the Consumer Federation of America (hereinafter referred to as "Public Gas") seeking to reopen the Southern Louisiana Area Rate Proceedings on the basis of articles written by a syndicated columnist, Jack Anderson. In support hereof, we respectfully show, as follows:

I.

Public Gas has filed a petition, presumably on the eve of decision in these enormously important proceedings, calling for three things: (a) Commission acknowledgment of the Jack Anderson articles; (b) Public disclosure of the studies, memos and letters referred to in the Jack Anderson articles; and (c) Reopening of the proceedings. The first and second requests are moot, and the third should be denied forthwith, as we now show.

[13,522]

II.

Insofar as the first objective of Public Gas is concerned, it is obvious that the message of the Jack Anderson articles has been conveyed to the Commission. Indeed, by order issued July 2, 1971, the Commission designated such articles as off-the-record communications

which may constitute an attempt to influence the Commission's decision, and ordered them placed in the public files in accordance with Section 1.4(d) of the Commission's Rules of Practice and Procedure.

III.

Similarly, with regard to the request that the Commission make "public disclosure to Petitioners of the 'studies, memos and letters' identified in the newspaper articles by Jack Anderson," the Commission's order issued July 2, 1971 in these proceedings provided for public disclosure of the intra-agency memoranda. Thus, the second request of Public Gas is also moot.

IV.

The petition to reopen should be denied because (1) the differences between the AGA Reserves Committee figures and those compiled by the Commission staff from Form 15 reports and questionnaires have already been the subject of inquiry

[13,523]

in this proceeding; and (2) contrary to the basic assertion of the petition to reopen, the material does not constitute "new evidence"—as we demonstrate from their own prior filings in this proceeding.

V.

In the first place, it should be observed that the gas reserve data referred to in the Jack Anderson articles and in the Public Gas petition, relates to the Offshore area of Southern Louisiana, rather than to the entire Southern Louisiana pricing area. This is important be-

cause one of the factors which precludes identical results relates to the location of very substantial reserves in reservoirs which straddle the arbitrary line between Offshore and Onshore portions of the area; there is no standard technique for allocating reserves under these circumstances. Similarly, there are definitional variations between the "proved" reserves to be reported by the AGA committee, and the "recoverable" gas reserves set forth in the Form 15 reports. The prospect and timing of development are significant factors, standing alone, which could scarcely be expected to coincide. And, it is also obvious—and a matter of record—that the Form 15 reports properly rely upon warranty gas committed by major producers, while the AGA study cannot include any portion of such supply until it has been proved.

[13,524]

The foregoing factors, as well as others having a bearing upon the so-called "discrepancy" were discussed not only by the witnesses during the hearings, but also extensively among the technical representatives of the parties in the numerous informal conferences, prehearing sessions and committee sessions where much of the technical work was accomplished. Even limiting the matter to the witnesses who formally appeared and presented evidence, these included the Chairman of the AGA Committee on Natural Gas Reserves, most of whose testimony dealt with the AGA estimate; the gas reserve and deliverability expert presented by the Pipeline Purchaser Group; and the group of staff witnesses who dealt with these matters, Zabel, Mangen and Lindvall. In fact, the staff witness Zabel sponsored Exhibit 31-A, which is the source of the 34 trillion cubic feet reserves estimate (Schedule 1, Line 20, Column h). Public Gas is totally

unjustified in terming this data "heretofore undisclosed Staff studies" (page 3).

VI.

In any event, the issue is not whether Public Gas agrees with any of the estimates, or even whether it addressed its attention to them at the time they were placed in evidence. Rather, the issue is whether the Commission is required to reopen the record to admit staff memoranda which do no more than summarize, erroneously we believe, studies which are in the record. Clearly, this is not a basis to reopen.

[13,525]

VII.

But, even if all else were awarded in its favor, Public Gas could not prevail because its own prior filings fatally undercut its basic contention that the differences between the two studies constitutes "new evidence of vital importance" (page 2). In short, Public Gas itself stressed this same "disparity" in its briefs—prior to the Anderson "disclosure."

Indeed, the most startling Anderson "revelation", and the only one quoted in the petition to reopen, as reproduced by Public Gas, was (page 2):

> " 'The American Gas Association, which speaks for the producers, estimated one part of the Louisiana reserves to be 24 trillion cubic feet. But the FPC's own experts after careful calculation, came up with a 34 trillion figure. The difference of 10 trillion cubic feet would seriously weaken the producers' case for a rate increase.' "

The fact that is was *not* "new evidence" is proved by reference to the Reply Brief filed by Public Gas (jointly with Memphis), well in advance of the Jack Anderson articles (page 18):

> "The Form 15 reserve figures reported by the pipe lines indicate 34.1 TCF of proved recoverable reserves in the off-shore area (Ex. 31-A, Sch. 1). The AGA figures for the same category of reserves is only 24.1 TCF (Ex. 8-A). A discrepancy of 10 out of 24 cannot be ignored."

[13,526]

The cornerstone of the Jack Anderson articles—and the only point which is pertinent to the petition to reopen—is thus shown to be nothing but a paraphrase of the argument set forth by American Public Gas Association in its Reply Brief, earlier in this proceeding. It is incomprehensible how this same item can be urged as grounds for reopening. The petition should be denied forthwith.

Respectfully submitted,

PIPELINE PURCHASER GROUP

By /s/ Raymond N. Shibley
RAYMOND N. SHIBLEY
Counsel for the Group

[13,529]

Supplement of APGA and CFA to Petition

[13,529]

[Caption Omitted]

SUPPLEMENT OF AMERICAN PUBLIC GAS ASSOCIATION AND CONSUMER FEDERATION OF AMERICA TO PETITION TO REOPEN PROCEEDINGS.

The American Public Gas Association and Consumer Federation of America hereby supplement their petition to reopen these proceedings filed June 25, 1971, to incorporate as an offer of proof a number of the documents apparently relied upon by Columnist Jack Anderson in his articles appearing in the *Washington Post* dated June 14 and 15, 1971,[1] which were made public by the Commission on July 2, 1971. These documents, together with the conflicting concessions as to the present record discrepancies relating to reserve figures by the Staff and Producers in their answers to the petition clearly require the entire matter to be explored upon the record.

1. *The new documents showing the nature of discrepancies in reserve figures should be incorporated in the record.*

The petition to reopen filed June 25, 1971 requested that the documents referred to in the *Post* articles be made available under the Freedom of Information Act. The Commission in an order issued July 2, 1971 provided that:

[13,530]

2. The public interest under the circumstances of this case requires that the Commission waive its

[1] The American Public Power Association, a party to these proceedings has filed in support of the petition to reopen.

right, under the Freedom of Information Act, 5 U.S.C. Section 552(d)(5), to maintain the confidentiality of the intra-agency memoranda referred to in the above-mentioned articles by Jack Anderson, and certain related memoranda.[2]

The Commission directed the Secretary of the Commission to "place the communications in public files associated with these proceedings, *but separate from the record material upon which the Commission can rely in reaching decisions.*"[3] Pursuant thereto the Secretary of the Commision in an order dated July 2, 1971 entitled "Release of Intra-Agency Documents" designated thirty three documents "to be placed in the public file in the consolidated proceedings which bear the docket numbers AR61-2 and AR69-1." These documents upon which the Anderson articles were allegedly based were reviewed by the petitioners for the first time on July 6, 1971 at the Commission's public reference room.

Upon their review it is clear that these documents contain important new evidence not in the hearing record of the case, which is essential for a full consideration by the Commission of the key gas reserve issues involved. Accordingly, petitioners hereby amend their petition to reopen the proceedings to incorporate, as an offer of proof, the following documents as identified by the Secretary's designation of July 2, 1971[4] to be included in the formal record: Exhibits A, B, C, D, H, J, Q, R, S, T, U, V.

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[2] Mimeo. at p. 3.

[3] *Ibid.* (emphasis added).

[4] The designation is attached hereto as Appendix 1 to identify the documents.

Not only should these documents be made part of the hearing record in the case, but the important new issues involved should be thoroughly explored by cross-examination and further hearings for the reasons discussed below in order to develop a full and complete record in the public interest.

2. *The concession by Staff Counsel in his "Answer to Petition to Reopen Proceedings" dated July 6, 1971 that there is "a discrepancy of 8 Tcf in the offshore Southern Louisiana Area" gas reserve figures, confirms the need to reopen the record.*

Staff Counsel's "Answer In Opposition to Petition to Reopen Proceedings" dated July 6, 1971 clearly confirms the need to reopen the record. For the first time the Staff Counsel has publicly conceded that there is at least an eight trillion cubic foot "discrepancy" in the reserves reported by the AGA Committee on Natural Gas Reserves for the Federal Domain Area Offshore Southern Louisiana with the Staff estimate of reserves for the same area "based primarily on Form 15 reserves plus certain additional data reported pursuant to special questionnaires."[5] This admitted "discrepancy" amounts to 33.3 percent of the total gas reserves reported by the AGA Reserve Committee for the area for the 1969 test year,[6] with the AGA figures being lower than the pipeline figures reported in the FPC Form 15's. Staff fur-

[5] Staff Answer pp. 4, 7.

[6] Staff's assertion that 2 trillion feet of the 10 trililon cubic foot difference comes from an overlap in the reporting areas (Answer p. 4) has never been established on the record. A 10 trillion foot difference would increase the "discrepancy" between the AGA and Form 15 figures to the 40 percent range.

ther concedes that the pipeline reserve experts reporting on the Form 15's have in fact reached a substantially different conclusion from the AGA Reserve Committee, composed primarily of producers:

[13,532]

> The difference in the Federal Domain reserve estimates must be recognized for what it is, that being a difference of opinion among experts as to the volume of proved reserves underlying the offshore leases. . . .[7]

With respect to this explanation, we agree with the contrary conclusions of the Chief of the Commission's Office of Economics expressed in a memorandum to the assistant general counsel dated December 1, 1970 (Ex. U):

> A 40 percent allowance for judgmental factors may be appropriate for new fields without production experience, but not for fields which have been in production for a few years. Much of the offshore reserves is in the latter category.

The importance of the discrepancy is highlighted by the fact that the Federal Domain area is the one producing region where there can be a real check of the AGA Reserve figures by the Form 15's because all of the gas therefrom is considered to be in interstate commerce and thus covered by the Form 15's. Staff's attempt to disregard the now admitted major discrepancy in the one key area of comparability of Form 15's to the AGA data by leaping to the statement that "on a nationwide basis there is no substantial difference in reserve estimation as between the two data sources, Form 15 and

[7] Staff Answer p. 4.

the AGA" [8] is completely unsupported and unfounded on the record. It is impossible to compare the Form 15 reported reserves, which cover the interstate reserves dedicated to the interstate pipelines, with the AGA reported reserves allegedly covering all reserves both interstate and intrastate, unless the amount of the unreported intrastate reserves not covered by the Form 15's and comparable thereto is known for any given period. This figure as to intrastate reserves comparable

[13,533]

to the interstate reserves reported on the Form 15's is not in the record.[9] Staff's entire argument as to nationwide comparability is thus based on a false, unsupported assumption, i.e. that merely because the ratio of Form 15 reported reserves to the AGA Reserves Committee figures in 1963 is similar to the ratio in 1969, this proves that the Form 15's substantiate the AGA figures. To the contrary, the exact reverse could be true depending on the growth of the unreported intrastate reserves between 1963 and 1969.[10] Thus, if the intrastate market had a greater ratio of reserves committed to it in 1969 than in 1963 as other extrinsic data appear to suggest,[11] then the fact that Form 15 to AGA ratio was the same

[8] Staff Answer, p. 6.

[9] Staff counsel has not sought to obtain this data. It is clearly improper to simply assume that the intrastate reserves equal the difference between the Form 15's and the AGA Reserve Committee figures because this would destroy the basis for any objective comparability between the two sets of data. Separate direct reporting of intrastate reserves on a comparable basis to the Form 15's would be required.

[10] In Docket R-389A, a Commission Staff study was made of the growth in the intrastate market for natural gas but no detailed analysis was made of the gas reserves committed to such markets.

[11] See note 10 *supra*.

in 1969 as in 1963 clearly establishes that the AGA figures for 1969 are understated on a nationwide basis. The clear new concession by Staff Counsel that there is at least a 33.3% differential for 1969 for the important Louisiana Federal Domain, where there should be a general comparability of Form 15 and AGA data, makes it imperative that the entire subject be reopened for a careful, complete analysis of the matter on the record in the public interest.

Nor may Staff Counsel properly argue that its new disclosure of "a discrepancy of 8 Tcf" has been fully treated on the record. The intra-agency documents released by the Commission order of July 2, 1971, conclusively demonstrate the need to reopen these proceedings to determine the validity of the AGA reserve data which

is the foundation of the new gas prices recommended by the Staff. Those documents not only confirm that the Staff failed to adequately explore the matter of the validity of the AGA data, but reveal that it in fact misled the parties and the Examiner by asserting that independent Staff investigations confirmed their validity.

The assertion in Staff counsel's brief in opposition that "it is difficult to imagine what more the Staff or the parties could have done or could do now to provide a more adequate record" (p. 8) is belied by the Staff's actual performance during the proceedings. First, even though the significance of the 33.3 percent discrepancy in the Southern Louisiana figures was of major importance and so recognized within the Staff, which was in sole possession of the relevant data, it was not even mentioned in Staff witness Zabel's prepared testimony in support of Ex. 31-A. Moreover, when witness Zabel was cross-examined on the subject, Staff counsel objected

strenuously on the ground that witness Zabel had not had an opportunity to compare AGA figures with those he used to prepared Ex. 31-A and that there might be no reason why they should be roughly comparable. Consequently, the line of questioning was discontinued until witness Zabel could return for later cross-examination, upon Staff counsel's representation that such a delay "will give us time to analyze it and Mr. Zabel will be more prepared to answer the questions" (R. 5371). Nevertheless, when witness Zabel returned the following week he testified that with respect to the discrepancies between his Ex. 31-A and the AGA figures he had not compared the two sets of figures, nor had he made any study to determine the basis for the discrepancies (R. 5485-88).

Secondly, although Staff counsel did conduct some limited cross-examination of Mr. Jacobs, chairman of the AGA Natural Gas Reserves Committee, this key witness was not asked to comment on or attempt to explain how such a discrepancy might exist.

Finally, when the admissibility of the AGA reserve data for 1969 was opposed, Staff counsel argued for its validity without the barest acknowledgement of the questions raised by the Staff's own investigation. Moreover, not only was the discrepancy not mentioned, but Staff counsel told the examiner that he wanted to be sure that he "stated on the record that it has been the testimony of Staff witnesses in this proceeding that have been cross-examined to date that the *trends* in reserve additions and gas supply as reported by the AGA have been in fact confirmed in large degree by the data which is reported to the Federal Power Commission on FPC Form

15." (R. 4755, emphasis added.) Staff counsel's careful reference to the comparable "trends" shown by the two sets of figures as discussed above depends upon unknown data. Moreover, argument on admissibility was on much broader grounds. The memorandum of December 1, 1970 by the Chief of the Office of Economics (Ex. U) points out the significant distinction:

> I agree with the statement about corrobation of broad trends. However, the reliability of the AGA data for estimating unit costs or for assessing the adequacy of current supply is a separate issue—and a critical issue for the Commission's area rate decisions.[12]

Staff counsel buttressed his assurance to the Examiner by a catalog of factors which he asserted "all go to establish the validity of the data that is in question at the present time" (R-4758). This has been Staff's consistent public theme, even though an intramural controversy was taking place over the very issue of the reliability of the AGA data, as many of the documents released by the Commission on July 2, 1971 so dramatically reveal.

Specifically, although the Staff now asserts that similar discrepancies do not exist nationwide, a memorandum to the Chairman of the

Commission dated February 12, 1970 (Ex. A) clearly shows that Staff analysis uncovered numerous other instances of significant discrepancies in other regions of the country. On the basis of the serious doubts expressed by certain Staff members as to the reliability of the AGA figures, as well as the efforts made to submerge the

[12] See also Memo to Chairman Nassikas from Chief, Office of Economics dated February 12, 1970, Exhibit A to Secretary Release of July 2, 1971.

Southern Louisiana discrepancies in the hearing, we are not prepared to accept on faith Staff counsel's assertions that they are of no consequence, nor should the Commission.

The General Counsel informed the Chairman of the Commission by memorandum dated November 19, 1970 that "the existence and meaning of this discrepancy [between the AGA figures and Staff Ex. 31-A] if any, will be an issue when AR69-1 is before the Commission for decision." (Ex. T). Although the hearing was not concluded until months later on March 11, 1971, no effort was made by the Staff to develop a record on which the issue could be meaningfully evaluated by the Commission.

Staff's performance clearly falls far short of the affirmative duty imposed on the Commission to develop a fair and adequate record in the public interest:

> If the Commission is properly to discharge its duty in this regard, the record on which it bases its determination must be complete. The petitioners and the public at large have a right to demand this completeness.
>
> * * * *
>
> In this case, as in many others, the Commission has claimed to be the representative of the public interest. This role does not permit it to act as an umpire blandly calling balls and strikes for adversaries appearing before it; the right of the public must receive *active and affirmative protection* at the hands of the Commission.[13]

Consequently, these proceedings should be reopened to permit, for the first time, a full airing of this issue.

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[13] Scenic Hudson Pres. Conf. v. FPC, 354 F.2d 608, 612, 620 (2d Cir. 1965), *cert. denied*, 384 U.S. 941 (1966) (emphasis added.)

Given the tremendous importance of the factual issue involved, and the clouded manner in which it has surfaced, the persistent concern of Staff counsel for expediting these already lengthy proceedings is clearly outweighed by the overriding due process principles involved.

The Commission's duty is clear:

> The agency does not do its duty when it merely decides upon a poor or nonrepresentative record. As the sole representative of the public, which is a third party in these proceedings, the agency owes the duty to investigate all the pertinent facts, and to see that they are adduced when the parties have not put them in. . . . The agency must always act upon the record made, and if that is not sufficient, it should see the record is supplemented before it acts. It must always preserve the elements of fair play, but it is not fair play for it to create an injustice, instead of remedying one, by omitting to inform itself and by acting ignorantly when intelligent action is possible.[14]

3. *The conflicting analysis by the Producers in their Answer to the Petition to Reopen further highlights the inadequacy of the present record.*

Contrary to the Staff assumption that the Form 15 and AGA Reserve Committee data should and do correlate on a nationwide basis, the producers claim flatly that "such assumption is without foundation because the reserves estimates contained in pipeline Form 15 reports and AGA reports are submitted under different defini-

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[14] Isbrandtsen Co., Inc. v. United States, 96 F.Supp. 883 (1951), *affirmed per curiam*, 342 U.S. 950 (1952).

tions and standards." But if the producers are right, then the whole assumption of the Staff that "on a nationwide basis there is no

[13,538]

substantial difference in reserve estimation as between the two data sources" [15] is completely fallacious. The producers assert that the AGA reported reserves are based on a definition of "proven" reserves which differs from that used by the pipelines in preparing the Form 15's so that different reserves are included. This in and of itself poses a substantial new important issue not developed on the record, which apparently is inconsistent with the Staff understanding. If reserves are adequate to support Commission issuance of certificates under Section 7 of the Act for construction of new projects, similar reserves should be used for the computation of price in the area rate methodology.

4. *The ex parte staff presentations to the Chairman of the Commission on the reserves data issue violate the Administrative Procedure Act.*

The Administrative Procedure Act provides that the hearing record "constitutes the exclusive record for decision." 5 U.S.C. 556(e). Whatever view one may take of the limits of permissible or proper agency action in adjudicatory proceedings, the released documents clearly reveal a breach, happily still remediable, of the spirit if not the letter of the Act. The released memoranda clearly reveal that the critical issue of the validity of the AGA reserves data, which should have been fully developed on the record by the Staff, was instead briefed and argued ex parte by some Staff members to the Com-

[15] Staff Answer, p. 6.

mission Chairman, who must render the decision on this vital point. Those practices, which make a mockery of the hearing process, require that the proceedings be reopened for a full and fair hearing on the reliability of the AGA reserves data.

[13,539]

WHEREFORE, for the foregoing reasons, the Petitioners request that the Commission reopen the proceedings in this docket for the receipt into evidence of the documents referred to herein and for a full hearing and investigation relating to substantial discrepancies between the industry reserve figures now in evidence in the record.

Respectfully submitted,

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[13,540]

APPENDIX 1

[Caption Omitted]

RELEASE OF INTRA-AGENCY DOCUMENTS

July 2, 1971

Pursuant to the "Order Concerning Ex Parte Communications and Authorizing Release of Intra-Agency Documents" and the authority which has been delegated to me thereunder I designate the following intra-agency memoranda to be placed in the public file in the consolidated proceedings which bear the docket numbers AR61-2 and AR69-1:

Exhibit A. Memorandum to Chairman Nassikas from Chief, Office of Economics (Wald), dated February 12, 1971, subject: Comparison of Form 15 and AGA Statistics for Gas Reserves.

Exhibit B. Memorandum to Chairman Nassikas from Producer Division, Bureau of Natural Gas (McManus) dated February 13, 1970, Reliability of Proven Reserve Estimates.

Exhibit C. Memorandum to the General Counsel (Gooch) from Chief, Office of Economics (Wald) dated February 19, 1970, subject: Questions regarding AGA reserves data.

Exhibit D. Memorandum to Commission from Chief Econometrician, Office of Economics (Khazzoom) dated February 19, 1970, subject: Issues in Gas Rate Determination (referred to in item C, supra).

Supplement of APGA and CFA to Petition

Exhibit E. Memorandum to Commission and Office Heads from Chief, Bureau of Natural Gas (Joyce), subject: Meeting on Gas Reserves Estimation Methods.

[13,541]

Exhibit F. Memorandum to Chief, Bureau of Natural Gas from Chief, Office of Economics dated March 11, 1970, Meeting with AGA Reserves Committee.

Exhibit G. Memorandum to Commission from General Counsel (Gooch) dated March 12, 1970, subject: Mr. Joyce's meeting on Gas Reserves Estimation Methods with Mr. Jacobs.

Exhibit H. Memorandum to Mr. Mattingly, Office of General Counsel from Chief, Office of Economics (Wald) dated March 13, 1970, subject: Comments on Questions for AGA, copy to Gooch.

Exhibit I. Memorandum to Mr. Mattingly from F. W. Lawrence dated March 16, 1970, questions for Mr. Jacobs of AGA.

Exhibit J. Memorandum to Mr. Mattingly from Assistant Chief, Office of Economics (Schwartz) dated March 16, 1970, Comments Concerning Questions for Mr. Jacobs of AGA.

Exhibit K. Memorandum to Mr. Wald from Mr. Gooch dated March 18, 1970.

Exhibit I. Memorandum to Mr. Gooch from Mr. Wald dated March 18, 1970.

Exhibit M. Memorandum to General Counsel (Gooch) from Chief, Office of Economics dated March 19, 1970, Miscellaneous Observations on Arrangements for AGA Witness on Reserves Estimates.

[13,541]

Supplement of APGA and CFA to Petition

Exhibit N. Memorandum to General Counsel (Gooch) from Chief, Office of Economics (Wald) dated March 23, 1970 subject: Propriety of Pre-hearing Off-the-Record Meeting with AGA Witness in AR69-1.

Exhibit O. Memorandum to Mr. Wald from Mr. Gooch dated March 25, 1970.

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Exhibit P. Memorandum to Commission from Chief, Bureau of Natural Gas dated March 27, 1970, Meeting on Gas Reserves Estimation Methods.

Exhibit Q. Memorandum to Chief, Office of Economics (Wald) from Ralph A. Johnson dated November 10, 1970, subject: Comparison of 1969 AGA Reserves Estimates with Staff Reserve Data for South Louisiana (AR69-1).

Exhibit R. Memorandum to Chairman Nassikas from Chief, Office of Economics (Wald) dated November 13, 1970, subject: Conflicting Estimates of Gas Reserves for Offshore Louisiana (Federal Domain).

Exhibit S. Memorandum to Chairman Nassikas from Chief, Bureau of Natural Gas (Joyce) dated November 19, 1970, subject: Docket No. AR69-1—Comparison of Offshore Federal Domain Reserves as Reported in Staff Exhibit No. 31-A and as Estimated by AGA.

Exhibit T. Memorandum to Chairman Nassikas from General Counsel (Gooch) dated November 19, 1970, Testimony on Gas Reserves Estimates in Docket No. AR69-1.

Exhibit U. Memorandum to Mr. Wakefield from Haskell P. Wald dated December 1, 1970.

Supplement of APGA and CFA to Petition

Exhibit V. Memorandum to Chairman Nassikas from General Counsel (Gooch), Chief, Bureau of Natural Gas (Joyce) and Chief, Office of Economics (Wald) dated December 16, 1970, subject: Comparison of Offshore Southern Louisiana Reserve Estimates.

Exhibit W. Memorandum to General Counsel (Gooch) from Chief, Office of Economics (Wald) dated March 23, 1971, Staff Brief, AR61-2 and AR69-1.

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Exhibit X. Memorandum to Chief, Office of Economics (Wald) from General Counsel (Gooch) dated March 26, 1971, subject: Staff's Brief, AR61-2 and AR69-1; relating to memo dated March 23, 1971.

Exhibit Y. Memorandum to General Counsel (Gooch) from Chief, Office of Economics (Wald) dated March 26, 1971, subject: Relating to General Counsel's memo of March 26, 1971.

Exhibit Z. Memorandum to Mr. Mattingly from Assistant Chief, Office of Economics (Schwartz) dated April 2, 1971, subject: Review of Draft Brief in AR69-1.

Exhibit AA. Memorandum to David Schwartz from Richard V. Mattingly dated April 9, 1971, subject: Staff Brief in AR61-2 and AR69-1.

Exhibit BB. Memorandum to Mr. Mattingly from Chief, Office of Economics (Wald) dated April 20, 1971, Comment on Initial Staff Brief, AR61-2 and AR69-1.

Exhbiit CC. Memorandum to Mr. Mattingly from Office of Economics dated April 20, 1971, Response to Objections to the Econometric Model.

[13,543]

Supplement of APGA and CFA to Petition

Exhibit DD. Memorandum to Phyllis H. Kline from Mr. Mattingly dated April 21, 1971, subject: The Econometric Model.

Exhibit EE. Memorandum to Chief, Office of Economics (Wald) from Mr. Mattingly dated April 21, 1971, subject: Southern Louisiana Brief.

[13,544]

Exhibit FF. Memorandum to Mr. Mattingly from Assistant Chief, Office of Economics (Schwartz) dated April 30, 1971, Comments Concerning AR69-1 Reply Brief.

Exhibit GG. Memorandum to Messrs. Gooch and Joyce from Assistant Chief, Office of Economics (Schwartz) dated May 14, 1971, transmitting alternatives A, B, and C to errata of reply brief.

KENNETH F. PLUMB
Secretary

[13,546]

[Caption Omitted]

OPINION AND ORDER DETERMINING JUST AND REASONABLE RATES FOR NATURAL GAS PRODUCED IN THE SOUTHERN LOUISIANA AREA

Issued: July 16, 1971

[13,547]

OPINION NO. 598

APPEARANCES—Docket Nos. AR61-2, *et al.*

H. F. Aby and *John C. Breed* for Tenneco Oil Company

Lynn Adams for Kerr-McGee Oil Industries, Inc.

Errol Anderson and *George C. Bond* for Union Oil Company of California

J. Evans Attwell and *W. H. Drushel, Jr.*, for Perry R. Bass (Operator), *et al.*, Austral Oil Company, Inc., Chas B. Wrightsman, Howard S. Cole, *et al.*, Agnes Cullen Arnold, *et al.*, Isaac Arnold, *et al.*, Geological Geophysical Associates, Herbert L. Dillon, Jr., Kilroy Properties, Inc., San Jacinto Oil & Gas Company, Petroleum Leaseholds, Inc., Petroleum Offshore Leaseholds, Nicklos Oil & Gas Company, Hurt Oil & Gas Corp., Jos. M. Rault, Jr., Inc., Crown Central Petroleum Corporation and Bel Oil Corporation

Edward M. Barrett for Long Island Lighting Company

W. C. Braden, Jr., Roy C. Alletag and *Robert E. Shaw for Tennessee Gas Transmission Company*

Thomas F. Brosnan for Texas Gas Exploration Corporation

[13,547]

Opinion and Order

Joiner Cartwright, Herf M. Weinert, Francis H. Caskin, Phillip D. Endom, Robert E. May, John A. Ward, III, and *Louis Flax* for Sun Oil Company

William T. Coleman, Jr., Richardson Dilworth and *Robert W. Maris* for Philadelphia Gas Works Division of The United Gas Improvement Company

[13,548]

Cecil N. Cook and *Neal Powers, Jr.*, for John W. Mecom, U.S. Oil of Louisiana, Inc., E. Cockrell, Jr., Freeport Oil Company, George R. Brown, Estate of Herman Brown, Petroleum, Inc., Bradco Properties, Inc., and Midhurst Oil Corporation

W. O. Crain and *Vernon N. Woods* for United Gas Pipe Line Company

Angus A. Davidson, Charles E. McGee, James D. McKinney, Jr., R. E. Christiansen and *John T. Ketcham* for Sinclair Oil and Gas Company

William H. Davidson, Jr., William N. Bonner, Jr., R. V. Loftin, Jr, Richard J. Connor and *Thomas F. Ryan, Jr.*, for Transcontinental Gas Pipe Line Corporation

Paul S. Davis for American Natural Gas Production Company

Alfred C. DeCrane, Jr., James J. Flood, Jr., and *William K. Tell, Jr.*, for Texaco Inc. and Texaco Seaboard, Inc.

Norman A. Flaningam, C. William Cooper and *Lawrence L. Gray* for The East Ohio Gas Company, Hope Natural Gas Company, Lake Shore Pipe Line Company, New York State Natural Gas Corporation, The Peoples Natural Gas Company, The River Gas Company and Consolidated Gas Supply Corporation

L. G. Folsom for Atlanta Gas Light Company and Georgia Public Service Commission

Bernard A. Foster, Jr., for The Atlantic Refining Company, The British American Oil Producing Company, Colorado Oil & Gas Corporation, Hugh R. Goodrich, R. H. Goodrich, Magna Oil Corporation, Robert B. Prentice, *et al.*, Skelly Oil Company and Tex-Star Oil & Gas Corporation

Richard F. Generelly, Gene P. Bond and *J. Evans Atwell* for F. A. Callery, Inc., Callery Properties, Inc., and Forest Oil Corporation

John W. Glendening, Jr., and *John S. Schmid* for The Berkshire Gas Company, *et al.* (The New England Intervenor Group)

[13,549]

Reuben Goldberg, George Spiegel and *George E. Morrow* for Memphis Light & Water Division, City of Dyersburg, Tennessee, Gibson County Utility District, City of Humboldt, Tennessee, Board of Public Utilities, Jackson Utility Division of the City of Jackson, Tennessee, City of Brownsville, Tennessee, Town of Covington, Tennessee, Tipton County Utilities Company, Inc., Crockett Utility District of Crockett County, Tennessee, and Bells Utility District of Crockett County, Tennessee

Saunders Gregg for Union Producing Company

Hon. Jack P. F. Gremillion, Attorney General of Louisiana, for State of Louisiana

J. P. Greve, Homer E. McEwen, Jr., and *Dale E. Doty* for Sunray DX Oil Company

Tom P. Hamill, Robert D. Haworth, R. C. Drummond and *W. S. Swayze* for Socony Mobil Oil Company, Inc.

J. P. Hammond and *T. C. McCorkle* for Pan American Petroleum Corporation

Kenneth Heady, John R. Rebman, H. K. Hudson and *Stanley L. Cunningham* for Phillips Petroleum Company

Robert W. Henderson for Hassie Hunt Trust, H. L. Hunt, Haroldson L. Hunt, Jr., Trust Estate, Claude M. Langton, Trustee, Lyda Hunt—Bunker Trusts, Lyda Hunt—Herbert Trusts, Lyda Hunt—Lamar Trusts, Lyda Hunt—Margaret Trusts, Lyda Hunt—Caroline Trusts, Caroline Hunt Sands, Lamar Hunt, W. H. Hunt, Secure Trusts, Hunt Oil Company and Placid Oil Company

John H. Henren and *Cleon L. Burt* for Mississippi River Fuel Company

G. Kirby Herrington for New York State Natural Gas Corporation

Carl Illig, Martin N. Erck, Jesse Foster and *Charles E. Merzbacher* for Humble Oil & Refining Company

Kenneth C. Keener for *Gulf Oil Corporation*

Edward S. Kirby, James R. Lacy and *J. Harry Mulhern* for Public Service Electric and Gas Company

Robert O. Koch, William E. Feldhaus and *Christopher T. Boland* for Texas Gas Transmission Corporation

Gentry Lee, S. F. Jones and *R. J. Leithead* for Cities Service Oil Company, Cities Service Company, Cities Service Production Company, Columbian Fuel Corporation

J. David Mann and *William R. Duff* for The Berkshire Gas Company; Valley Gas Company; Boston Gas Com-

pany; The Bridgeport Gas Company; Bristol and Warren Gas Company; Brockton Taunton Gas Company; Buzzards Bay Gas Company; Cambridge Gas Company; Central Massachusetts Gas Company; Concord Natural Gas Corporation; The Connecticut Gas Company; Fall River Gas Company; Fitchburg Gas and Electric Light Company; Gas Service, Inc.; The Greenwich Gas Company; The Hartford Electric Light Company; The Hartford Gas Company; Haverhill Gas Company; City of Holyoke, Massachusetts Gas and Electric Department; Lawrence Gas Company; Lowell Gas Company; Lynn Gas Company; Manchester Gas Company; Mystic Valley Gas Company; New Bedford Gas and Edison Light Company; The New Britain Gas Light Company; New Haven Gas Company; The Newport Gas Light Company; North Attleboro Gas Company; North Shore Gas Company; Northampton Gas Light Company; City of Norwich, Department of Public Utilities; Norwood Gas Company; The Pequot Gas Company; Providence Gas Company; South County Gas Company; Springfield Gas Light Company; Tiverton Gas Company; Wachusett Gas Company; City of Westfield Gas and Electric Light Department and Worcester Gas Light Company (jointly); New York State Electric & Gas Corporation; Rochester Gas and Electric Corporation; Niagara Mohawk Power Corporation; Central Hudson Gas and Electric Corporation; The Brooklyn Union Gas Company; Consolidated Edison Company of New York, Inc.; Long Island Lighting Company; Orange and Rockland Utilities, Inc.; Public Service Electric and Gas Company; Elizabethtown Consolidated Gas Company; New Jersey Natural Gas Company; South Jersey Gas Company; Equitable Gas Company; The East Ohio Gas Company; Hope Natural Gas Company; Lake Shore Pipe Line Company; New York State Natural Gas Corporation; The Peoples Natural Gas Company and

The River Gas Company (jointly); Pennsylvania Gas & Water Company; Philadelphia Electric Company; Philadelphia Gas Works Division of The United Gas Improvement Company; The United Gas Improvement Company; Delaware Power & Light Company; Baltimore Gas and Electric Company; Washington Gas Light Company; Piedmont Natural Gas Company, Inc., and Public Service Company of North Carolina

[13,551]

Vincent P. McDevitt, Samuel G. Miller, Henry P. Sullivan and *Morton Simons* for Philadelphia Electric Company

Bruce R. Merrill, Tom Burton and *Joseph C. Johnson* for Continental Oil Company and Newmont Oil Company

Joseph W. Morris and *Edwin S. Nail* for Amerada Petroleum Corporation

R. J. Nery and *Edward B. Hipp* for North Carolina Utilities Commission

James O'Malley, Jr., H. G. Skinner, Ronald D. Jones and *Eugene B. Thomas* for Consolidated Edison Company of New York, Inc., Niagara Mohawk Power Corporation and Orange and Rockland Utilities, Inc.

William I. Powell and *L. Dan Jones* for Independent Petroleum Association of America

Thomas G. Roderick, Jr., for The East Ohio Gas Company

Edwin F. Russell, Harry G. Hill, Jr., and *Barbara M. Suchow* for The Brooklyn Union Gas Company

James B. Sayers for The Peoples Natural Gas Company

J. J. Schmidt for Hope Natural Gas Company

Charles V. Shannon for American Louisiana Pipeline Company

Raymond N. Shibley, John T. Miller, Jr., and *Richard A. Rosen* for Southern Natural Gas Company, Tennessee Gas Transmission Company, Texas Gas Transmission Corporation, Texas Eastern Transmission Corporation, Transcontinental Gas Pipe Line Corporation, Trunkline Gas Company and Columbia Gas System Companies

Morton L. Simons, Kent H. Brown and Barbara M. Suchow for Public Service Commission of the State of New York

John F. Sisson and *D. Pierre G. Cameron, Jr.,* for Atlantic Seaboard Corporation, Manufacturers Light & Heat Company, Ohio Fuel Gas Company and United Fuel Gas Company

[13,552]

Peter G. Smith and *William S. Tarver* for Southern Natural Gas Company

John C. Snodgrass for The Pure Oil Company

Howard S. Spering and *William R. Connole* for Michigan Public Service Commission

Herbert E. Squires and *Alan R. Squires* for Pennsylvania Public Utility Commission

Oliver L. Stone, Thomas G. Johnson and *William T. Wise* for Shell Oil Company

Wilson B. Stringer for Public Service Commission of Maryland

Arthur J. Sills and *Maria D. Stroumtsos* for Board of Public Utility Commissioners, State of New Jersey

Morton Taylor for Marathon Oil Company

William K. Tell, Jr., for Sohio Petroleum Company

George Thompson and *Roy G. Tulane* for the State of Wisconsin

William E. Torkelson for Public Service Commission of Wisconsin

H. W. Varner, Homer J. Penn and *William T. Kilbourne* for The Superior Oil Company

Woollen Walshe for The California Company

Charles F. Wheatley, Jr., for American Public Gas Association

Thomas A. White for Hope Natural Gas Company and The River Gas Company

Clyde E. Willbern for Tidewater Oil Company

Alfred J. Williams for Maracaibo Oil Exploration Corporation, Operator, *et al.*

Thomas C. Williams for Fuels Research Council, Inc.

Justin R. Wolf, Charles A. Case, Jr., and *Eugene Threadgill* for M. F. McCain, C. H. Lyons, Sr., Union Texas Petroleum, a Division of Allied Chemical Corporation and The California Company, a Division of California Oil Company

C. Oscar Berry and *Karl Michelet* for Washington Gas Light Company

Harry L. Bristol for New York State Electric & Gas Corporation

Philip R. Collins for the Estate of William G. Helis

Stuart J. Scott and *Bradford Ross* for The Atlantic Refining Company

Cecil E. Munn for General American Oil Company of Texas

James W. Tidmore, C. C. Whatley and *James B. Williams* for Public Service Commission of the State of Alabama

Richard H. Dent and *Sherman S. Poland* for Skelly Oil Company

John E. Holtzinger, Jr., Frederick Moring, Norman T. Hayes, Jr., and *Bertram D. Moll* for Associated Gas Distributors

William LeBuhn, Jr., John C. Breed, Bolivar C. Andrews and *Lewis Carroll* for the AR61-2 Pipeline Group

G. R. Redding and *Leland F. Cadenhead* for Trunkline Gas Company

Charles A. Case, Jr., Eugene Threadgill and *Stanley Wanger* for The California Company and Union Texas Petroleum

David R. Kaplan for County of Wayne, Michigan

Richard E. Rubenstein for Southeastern Public Service Company

Jacob Goldberg for The Consolidated Natural Gas Company Group

Reuben Lozner, Kenneth F. Plumb, John Williams, Lawrence A. Gollomp and *David J. Bardin* for the Staff of the Federal Power Commission

[13,554]

Morton L. Simons for Public Service Commission of the State of New York

George B. Pletsch and *Peter V. Fazio, Jr., Schiff, Hardin, Waite, Dorschel* and *Britton*, for Illinois Power Company

Woolen Walshe and *Justin R. Wolf* and *Joel Yohalem, Wolf* and *Case* for The California Company, a division of Chevron Oil Company

Elliott G. Flowers and *Justin R. Wolf* and *Joel Yohalem, Wolf* and *Case*, for Union Texas Petroleum, a division of Allied Chemical Corporation

Justin R. Wolf and *Joel Yohalem, Wolf* and *Case* for Chandeleur Pipe Line Company

Joseph W. Morris, Edwin S. Nail and *Tom S. Bunnell* for Amerada Hess Corporation (formerly Amerada Petroleum Corporation)

Jere G. Hayes for General American Oil Company of Texas

Cecil E. Munn, Cantey, Hanger, Gooch, Cravens and *Munn*, for General American Oil Company of Texas

Jerome J. McGrath for Independent Natural Gas Association of American

Frederic H. Lawrence and *Francis I. Fallon, Naylon, Huber, Magill, Lawrence* and *Farrell*, for New York State Electric and Gas Corporation

J. Harry Mulhern, E. S. Kirby and *James R. Lacey* for Public Service Electric and Gas Company

W. B. Waterman and *Charles A. Crampton* for Iowa-Illinois Gas and Electric Company

William I. Harkaway and *Joseph C. Swidler, Swidler* and *Belnap*, for Consolidated Edison Company of New York, Inc.

Edward J. Kremer and *Charles E. McGee* and *John T. Ketcham* for Atlantic Richfield Company

J. David Mann, Jr., John E. Holzinger and *Frederick Moring, Morgan, Lewis & Bockius,* for Associated Gas Distributors

Stanley M. Morley and *Homer E. McEwan, Jr.,* for Sun Oil Company

Richard N. George, Nixon, Hargrave, Devans and *Doyle,* for Rochester Gas and Electric Corporation

James D. McKinney, Jr., Ross, Marsh and *Foster,* for Signal Oil and Gas Company

A. E. Stebbins and *Michael P. Kelly* for Signal Oil and Gas Company

Vernon W. Woods and *William J. Le Buhn* for United Gas Pipe Line Company

John E. Watson for Tenneco Oil Company

H. H. Hillyer, Jr., Milling, Saal, Saunders, Benson and *Woodward,* for The Louisiana Land and Exploration Company

J. C. Ohrt for Union Producing Company

William R. Slye, James D. Annett and *Robert E. Newey* for Texaco Inc.

Morton Taylor for Marathon Oil Company

James O'Malley, Jr., Ronald D. Jones, H. G. Skinner and *Roger W. Robinson, LeBoeuf, Lamb, Leiby* and *MacRae,* for National Fuel Gas System and Niagara Mohawk Power Corporation

David E. Byers for Skelly Oil Company

[13,555]

Opinion and Order

W. J. Stark and *Richard F. Generelly, Shannon* and *Morley,* for Forest Oil Corporation

[13,556]

Richard M. Merriman and *J. Richard Tiano, Reid* and *Priest,* for Central Illinois Light Company, Michigan Gas Utilities, Mississippi Valley Gas Company and South Carolina Electric and Gas Company

Clyde E. Willbern for Getty Oil Company

William W. Brackett, Ross, Hardies, O'Keefe, Babcock, McDugald and *Parsons,* for The Jupiter Corporation

Tilford A. Jones, Jones and *Bastian,* for United Fuel Gas Company

Melbert Schwarz, Jr., for Union Carbide Petroleum Corporation

Derrill Cody for Kerr McGee Corporation

William T. Coleman, Jr., and *Edward Mannino, Dilworth, Paxson, Kalish, Kohn* and *Levy,* for Philadelphia Gas Works Division of United Gas Improvement Company

J. Philip Bahn and *Antonio G. Olivieri, Winthrop, Stimson, Putnam* and *Roberts,* and *James B. Falahee* for Consumers Power Company

Warren M. Sparks and *B. James McGraw* for Gulf Oil Corporation

Douglas C. Gregg, George C. Bond and *Henry B. Eubank* for Union Oil Company of California

R. D. Haworth, Roscoe C. Elmore and *C. B. Swanner* for Mobil Oil Corporation

Sherman S. Poland, Ross, Marsh and *Foster,* for Louisiana Land and Exploration Company

R. J. Leithead and *C. C. Cammack* for Cities Service Oil Company and Cities Service Company

Thomas G. Johnson and *Dan A. Bruce* for Shell Oil Company

J. P. Hammond and *Tom C. McCorkle* for Pan American Petroleum Corporation

[13,557]

Kenneth Heady and *John R. Rebman* for Phillips Petroleum Company

Frank P. Saponaro, Jr., and *H. W. Varner* for The Superior Oil Company

Martin N. Erck, Robert L. Norris and *J. Kirby Ellis* for Humble Oil & Refining Company

Harry S. Welch and *Phillip D. Endom* for Tennessee Gas Pipeline Company, a division of Tenneco Inc.

Charles V. Shannon, Shannon and *Morley*, and *N. J. Lesselyoung for Wisconsin Gas Company*

Thomas H. Burton and *Joseph C. Johnson* for Continental Oil Company

Raymond N. Shibley and *James J. Flood, Jr., Patterson, Belknap, Farmer* and *Shibley*, for Pipeline Purchaser Group (AR69-1)

Reuben Goldberg and *Allan Friedson* and *George E. Morrow* and *Charles F. Wheatley* and *William T. Miller* for Municipal Distributors Group

John W. Glendening, Jr., and *John S. Schmid, Glendening* and *Schmid*, for The Berkshire Gas Company, *et al.*

Opinion and Order

Edwin F. Russell, Barbara M. Suchow and *David C. Jones, Cullen* and *Dykman*, for Brooklyn Union Gas Company

Ira L. Freilicher and *Edward M. Barrett* for Long Island Lighting Company

Charles V. Shannon, Shannon and *Morley*, and *Arthur R. Seder, Jr.*, for Michigan Wisconsin Pipe Line Company and Michigan Consolidated Gas Company

William W. Brackett and *Paul E. Goldstein, Ross, Hardies, O'Keefe, Babcock, McDugald* and *Parsons*, for Natural Gas Pipeline Company of America, The Peoples Gas Light and Coke Company, and North Shore Gas Company

[13,558]

R. V. Loftin, Jr., L. H. Gall, T. H. Ryan and W. N. Bonner for Transcontinental Gas Pipe Line Corporation

Robert W. Henderson, Paul Hicks and *Don Young* for Hunt Oil Company, Hassie Hunt Trust, and Placid Oil Company

C. William Cooper for United Distribution Companies (UDC)

Hugh C. Daly for American Natural Gas System

Robert N. Hoffer for American Natural Gas System

Charles E. Gagnier for Central Illinois Light Company

Richard M. Merriman, Reid and *Priest*, for Central Illinois Light Company

C. F. Logan for Central Illinois Public Service Company

Elmer Nafzinger, Nafzinger and *Otten*, for Central Illinois Public Service Company

Richard T. Hansen for Citizens Gas and Coke Utility

Richard A. Rosan and *James D. Little* for Columbia Gas System (Columbia Gas of Kentucky, Inc., Columbia Gas of Maryland, Inc., Columbia Gas of New York, Inc., Columbia Gas of Ohio, Inc., Columbia Gas of Pennsylvania, Inc., Ohio Valley Gas Company, and Virginia Gas Distribution Company)

C. William Cooper and *Henry P. Sullivan*, Consolidated Natural Gas Company, and *Norman A. Flaningam* and *Charles R. Brown* for Consolidated Natural Gas System (Consolidated Gas Supply Corporation, The East Ohio Gas Company, Lake Shore Pipe Line Co., The Peoples Natural Gas Company, The River Gas Company, and West Ohio Gas Company)

John B. Simpson and *James B. Falahee*, Consumers Power Company, and *J. Philip Bahn, Winthrop, Stimson, Putnam* and *Roberts*, for Consumers Power Company

Julian De Bruyn Kops and *William E. Herron*, The Dayton Power and Light Company, for Dayton Power and Light Company

[13,559]

E. W. Thoerner, Jr., Director, Planning and Rate Department and *Donald I. Moritz*, Equitable Gas Company, for Equitable Gas Company

R. A. Blakeney and *Robert H. Sarikas*, Illinois Power Company, and *Peter V. Fazio, Jr., Schiff, Hardin, Waite, Dorschel* and *Britton*, for Illinois Power Company

Sidney Wellborn, Michigan Gas Utilities Company, and *Richard M. Merriman, Reid* and *Priest*, for Michigan Gas Utilities Company

Minor C. Sumners, Mississippi Valley Gas Company, and *Richard M. Merriman, Reid* and *Priest*, for Mississippi Valley Gas Company

Louis R. Reif, National Fuel Gas Company, and *James O'Malley, Jr.*, and *Ronald D. Jones, LeBoeuf, Lamb, Leiby* and *MacRae*, for National Fuel Gas System (Iroquois Gas Corporation, Pennsylvania Gas Company, and United Natural Gas Company)

Lauman Martin, Niagara Mohawk Power Corporation, and *James O'Malley, Jr.*, and *Ronald D. Jones, LeBoeuf, Lamb, Leiby* and *MacRae*, for Niagara Mohawk Power Corporation

Daniel Parson, Northern Illinois Gas Company, and *Justin A. Stanley, Mayer, Friedlich, Spiess, Tierney, Brown* and *Platt*, for Northern Illinois Gas Company

Richard F. Babcock and *William W. Brackett, Ross, Hardies, O'Keefe, Babcock, McDugald* and *Parsons* for The Peoples Gas System (North Shore Gas Company and The Peoples Gas Light and Coke Company)

George H. Fischer, South Carolina Electric and Gas Company, and *Richard M. Merriman, Reid* and *Priest*, for South Carolina Electric and Gas Company

Lynn R. Coleman, Vinson, Elkins, Searls & Connally, for Austral Oil Company, Inc., *Perry R. Bass, et al.*

James B. Reed, J. M. Huber Corporation, and *Tom P. Hamill* for Mobil Oil Corporation

Neal Powers, Jr., Butler, Binion, Rice, Cook & Knapp, for *E. Cockrell, Jr., John W. Mecom*, Lake Washington, Inc., U.S. Oil of Louisiana Inc., U.S. Oil of Louisiana, Ltd., Freeport Oil Company, Bradco Properties, Inc., Bradco Oil and Gas Company

John Rebman for Humble Oil & Refining Company

Paul H. Keck, Morgan, Lewis & Bockius, for Associated Gas Distributors

A. R. Edsall and *W. H. Owens* for Southern California Gas Company, Southern Counties Gas Company of California, Pacific Lighting Service Company

Philip S. Paul for Southern California Gas, Southern Counties Gas, Pacific Lighting

Kirk W. Weinert for Texaco, Inc.

W. G. Riddoch for Shell Oil Company

John W. Glendening, Jr., for The Berkshire Gas Company, *et al.*

Unser William Cole for Union Oil Company of California

John L. Williford for Phillips Petroleum Company

Robert Newey for Texaco, Inc.

Paul W. Wright for The California Company, a Division of Chevron Oil Company, Union Texas Petroleum, a Division of Allied Chemical Corporation

Robert W. Maris for Philadelphia Gas Works, a Division of UGI Corporation

William A. Mogel for United Distribution Companies

Leo J. Steffen, Jr., for Municipal Distributor Group

Carroll L. Gilliam for Pan American Petroleum Corporation

[13,561]

William T. Miller for Municipal Distributors Group

Robert W. Henderson for Hunt Oil Company, *H. L. Hunt,* Hassie Hunt Trust, Placid Oil Company, and other Hunt interests

[13,561]

Opinion and Order

Joseph J. Klovekorn for New York Public Service Commission

Philip R. Ehrenkranz, Grove, Jaskiewicz & Gilliam, for Mobil Oil Corporation

George Edgar for Associated Gas Distributors

Kirk W. Weinert, Shannon and *Morley,* for Sun Oil Company

Henry F. Krautwurst, Washington Gas Light Company, for Associated Gas Distributors

Robert A. Jablon, David J. Bardin, Richard V. Mattingly, Jr., Stephen A. Wakefield, Roy A. Nierenberg and *Boyd Richie* for the Staff of the Federal Power Commission

[13,562]

PARTIES FILING INITIAL BRIEFS

Docket No. AR69-1

Amoco Production Company
Hunt Oil Company, *et al.*
New York State Public Service Commission
Continental Oil Company
Texaco Inc.
Associated Gas Distributors
Pipeline Purchaser Group
Sun Oil Company
Bradco Oil & Gas Company and Bradco Properties, Inc.
Placid Oil Company, *et al.*
John W. Mecom
E. Cockrell, Jr.
United Distribution Companies

Municipal Distributors Group
Humble Oil & Refining Company, *et al.* (Indicated Respondents)
Mobil Oil Corporation
Freeport Oil Company
Lake Washington, Inc., U.S. Oil of Louisiana, Inc., and U.S. Oil of Louisiana, Ltd.
Commission Staff

[13,563]

INTERVENORS[2]

Docket No. AR61-2, *et al.*

Alabama Public Service Commission
New Jersey Board of Public Utility Commissioners
North Carolina Utilities Commission
Pennsylvania Public Utility Commission
Public Service Commission of the State of New York
Public Service Commission of West Virginia
Public Service Commission of Wisconsin
Public Utilities Commission of the Commonwealth of Massachusetts
South Carolina Public Service Commission
The State of Wisconsin
Algonquin Gas Transmission Company
Michigan-Wisconsin Pipe Line Company
Alabama Gas Corporation
Atlanta Gas Light Company
Baltimore Gas and Electric Company
The Berkshire Gas Company; Blackstone Valley Gas and Electric Company; Boston Gas Company; The Bridgeport Gas Company; Bristol and Warren Gas Com-

[2] Certain of those listed, while not formally granted intervention, filed briefs or are included on the briefs filed by parties or groups participating in the proceeding.

pany; Brockton Taunton Gas Company; Buzzards Bay Gas Company; Cambridge Gas Company; Central Massachusetts Gas Company; Concord Natural Gas Corporation; The Connecticut Gas Company; Fall River Gas Company; Fitchburg Gas and Electric Light Company; Gas Service, Inc.; The Greenwich Gas Company; The Hartford Electric Light Company; The Hartford Gas Company; Haverhill Gas Company; City of Holyoke, Massachusetts Gas and Electric Dept.; Lawrence Gas Company; Lowell Gas Company; Lynn Gas Company; Manchester Gas Company; Mystic Valley Gas Company; New Bedford Gas and Edison Light Company; The New Britain Gas Light Company; New Haven Gas Company; The Newport Gas Light Company; North Attleboro Gas Company; North Shore Gas Company; Northampton Gas Light Company; City of Norwich Department of Public Utilities; Norwood Gas Company; The Pequot Gas Company; Providence Gas Company; South County Gas Company; Springfield Gas Light Company; Tiverton Gas Company; Wachusett Gas Company; City of Westfield Gas and Electric Light Dept.; and Worchester Gas Light Company

The Brooklyn Union Gas Company

Central Hudson Gas and Electric Corporation

Florida Gas Transmission Company

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Consolidated Edison Company of New York, Inc.

Delmarva Power and Light Company

The East Ohio Gas Company; Hope Natural Gas Company; Lake Shore Pipe Line Company; New York State Natural Gas Corporation; The Peoples Natural Gas Company; and The River Gas Company

Public Service Commission of Maryland
Long Island Lighting Company
Memphis Light, Gas and Water Division; City of Dyersburg, Tennessee; Gibson County Utility District; City of Humboldt; Board of Public Utilities; Jackson Utility Division of the City of Jackson, Tennessee; City of Brownsville, Tennessee; Town of Covington, Tennessee; Tipton County Utilities Company, Inc.; Crockett Public Utility District; and Bells Public Utility District
Mississippi Valley Gas Company
New Jersey Natural Gas Company
Orange and Rockland Utilities, Inc.
Philadelphia Electric Company
Piedmont Natural Gas Company, Inc.
Public Service Electric and Gas Company
County of Wayne, Michigan
Michigan Public Service Commission
South Carolina Electric and Gas Company
South Jersey Gas Company
Tennessee Gas Transmission Company
Texas Gas Transmission Corporation
Transcontinental Gas Pipe Line Corporation
United Fuel Gas Company; Atlantic Seaboard Corporation; The Manufacturers Light and Heat Company; and The Ohio Fuel Gas Company
The United Gas Improvement Company
Wilmut Gas and Oil Company
Fuels Research, Inc.
Connecticut Public Utilities Commission
Georgia Public Service Commission
The Independent Petroleum Association of America
American Public Gas Association [3]
Atlanta Gas Light Company

[3] Membership listed in order of 8/20/63.

[13,565]

Niagara Mohawk Power Corporation
Pennsylvania Gas and Water Company
New York State Electric & Gas Corporation
Rochester Gas & Electric Corporation
Central Hudson Gas & Electric Corporation
Elizabethtown Consolidated Gas Company
New Jersey Gas Company
Equitable Gas Company
Delaware Power & Light Company
Public Service Co. of North Carolina
Washington Gas Light Company
Philadelphia Gas Works, Division of The United Gas Improvement Company

[13,566]

INTERVENORS

Docket No. AR69-1

Iowa Electric Light and Power Company
Consolidated Edison Company of New York, Inc.
Exchange Oil & Gas Company
South Carolina Electric & Gas Company
Mississippi Valley Gas Company
Central Hudson Gas & Electric Corporation
Consumers Power Company
Michigan Public Service Commission
Equitable Gas Company
Niagara Mohawk Power Corporation
People of the State of California and the Public Utilities Commission of the State of California
Willimut Gas and Oil Company
Memphis Light, Gas and Water Division, City of Dyersburg, Tennessee; Gibson County Utility District; City

of Humboldt Board of Public Utilities, Jackson Utility Division of the City of Jackson, Tennessee, City of Brownsville, Town of Covington, Tipton County Utilities Company, Inc., Crockett Public Utility District and Bells Public Utility District
Central Illinois Light Company
Iroquois Gas Corporation, Pennsylvania Gas Company and United Natural Gas Company
Mississippi River Transmission Corporation
North Carolina Utilities Commission
New York State Electric & Gas Corporation
Illinois Power Company
The Peoples Gas Light and Coke Company
North Shore Gas Company
American Public Gas Association
The Public Service Commission of the State of New York
Michigan Gas Utilities Company
Northern Illinois Gas Company
Associated Gas Distributors
Consolidated Natural Gas System Companies
Commonwealth Natural Gas Corporation
Central Illinois Public Service Company
Independent Natural Gas Association of America

[13,567]

Columbia Gas Distributors
The Dayton Power and Light Company
Wisconsin Gas Company
Michigan Consolidated Gas Company
Iowa-Illinois Gas and Electric Company
American Public Power Association
Northern Natural Gas Company
Brooklyn Union Gas Company
The National Association of Regulatory Utility Commissioners

[13,569]

Opinion No. 598

OPINION AND ORDER

(Issued July 16, 1971)

CARVER, Commissioner:

1. The original Southern Louisiana area rate proceeding, Docket Nos. AR61-2, *et al.*, was instituted by our order of May 10, 1961.[1] The initial decision of Chief Examiner Joseph Zwerdling was issued on December 30, 1966,[2] and the Commission issued its decision on September 25, 1968, in Opinion No. 546,[3] as modified by Opinion No. 546-A on March 20, 1969.[4] The final order was reviewed by the U. S. Court of Appeals for the Fifth Circuit, *Austral Oil Co.* v. *F.P.C.*, which issued an opinion on March 19, 1970,[5] and an order on rehearing on June 16, 1970.[6] Petitions for certiorari filed by various parties were denied.[7]

[13,570]

The "Mandate" of the Court of Appeals

2. We begin by briefly reviewing *Austral Oil Company* v. *F.P.C.*[8] Following the issuance of the opinion

[1] 25 FPC 942 (1961).

[2] 40 FPC 703 (1966).

[3] 40 FPC 530 (1968).

[4] 41 FPC 301 (1969).

[5] 428 F.2d 407 (1970).

[6] This order on rehearing is not reported in the Federal Reporter, CA5, No. 27492. A copy is attached.

[7] 400 U.S. 950 (Dec. 7, 1970).

[8] *Supra.*, note 5.

of the Fifth Circuit on March 19, 1970, various petitions for rehearing were filed. While these were pending, the Court directed certain questions to the Commission by letter, and a response was filed May 1970, wherein the Commission advised the court that it "has no authority to prescribe or permit retroactive rate changes," and has authority to modify, rescind, or set aside a rate order or moratorium affirmed by court "*only prospectively* from the date of a subsequent Commission order." And the Commission advised the court:

> "Therefore prospective changes in rates—increases or decreases—are the method by which the Commission adjusts for circumstances appearing since the entry of an order, unless the reviewing Court otherwise directs." [9]

3. The Fifth Circuit Court of Appeals did "otherwise direct." In the opinion of March 19, 1970, the court had said specifically:

> "The mandate of this Court should not, however, be interpreted to interfere with Commission action that would change the rates we have approved here." [10]

In its order on the petition for rehearing, and after the Commission's response above-quoted, the court went further:

> ". . . We wish to make crystal clear the authority of the Commission in this case to reopen any part of its order that circumstances require be reopened. Under Section 19(b) of the Natural Gas

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[9] Commission's response to the Court, May, 1970. (A copy is attached.)

[10] *Austral, supra.*, at 444-5.

> Act, this Court has the broad remedial powers that inhere in a court of equity, and pursuant to our equitable powers, *we make it part of the remedy in this case that the authority of the Commission to reopen any part of its orders, including those affecting revenues from gas already delivered, is left intact. The Commission can make retrospective as well as prospective adjustments in this case if it finds that it is in the public interest to do so.*" (Emphasis added).[11]

4. That language is authoritative, and we strive herein to follow it as the law of this case, and as sound in any event. It is evident, however, that the argument of some of the parties to these proceedings to the effect that the quoted language, far from being controlling, is either dictum or is the equivalent of *ultra vires*,[12] must be recognized and responded to. In this connection, we call attention to other language in the unreported opinion on petitions for rehearing of the Fifth Circuit which also may bear upon this matter:

> "At the same time, we emphasize that our judgment is an affirmance and not a remand. The appropriate place for originally considering what parts of the orders must be reopened in light of new evidence is before the Commission. It may be that the Commission will decide that the refunds it has ordered are just and reasonable or at least that their significance to the public interest is outweighed by the confusion and delay that would result from their reopening. In this event, the Commission will

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[11] *Austral, supra.*, Opinion on Rehearing, note 6, at p. 2.

[12] Municipal Distributors Group Initial Brief, beginning at p. 51, and New York State Public Service Commission, beginning at p. 58.

allow its refund orders to stand as they are. *Or it may be that the refunds are too burdensome in light of new evidence to be in the public interest.* In that case, it is our judgment that the Commission shall have the power and the duty to remedy the situation by changing its orders." (Emphasis added).[13]

[13,572]

The Scope of These Proceedings

5. In the light of the foregoing, it is important that we further discuss the procedural history. The Fifth Circuit had before it appeals from the orders in the Commission's Opinion No. 546 and Opinion No. 546-A, in Docket No. AR61-2. The reductions in rates and refunds therein ordered have never taken effect, having been stayed at different times by the Court and the Commission. They were first stayed by order of the Court of Appeals of May 13, 1969; this order was superseded by Commission order of May 29, 1969, which in turn was superseded by the Court which extended the Commission's stay indefinitely; after the Fifth Circuit's rehearing order was issued, the Commission on July 2, 1970, entered a new stay order to be effective upon the issuance of the court's mandate, which order was continued by the Commission coincident with its reopening of the proceedings in AR61-2, on December 24, 1970.[14]

6. Prior to this time, and coincident with the issuance of Opinion No. 546-A on March 20, 1969, a separate area rate case had been instituted under Docket No. AR69-1 (denominated "Order Instituting Investigation and Proposed Rulemaking").[15] This proceeding was even-

[13] *Austral, supra.*, Opinion on Rehearing, note 6, at pp. 2-3.

[14] 36 F.R. 69 (1971).

[15] 41 FPC 378 (1969).

tually enlarged [16] to become virtually coextensive in area and issues with AR61-2. Hearings on these expanded proceedings began on April 1, 1970, before Presiding Examiner Martin Rendelman and were concluded on March 11, 1971. Prior to the close of the record in that case, in the order of December 24, 1970, mentioned above, the Commission entered its order [17] consolidating AR69-1 with the reopened proceedings in AR61-2.

7. By order of the Commission, taken on motion of staff counsel, the intermediate decision of the presiding examiner was waived,[18] and the entire record in the consolidated proceedings was transmitted to the Commission.

[13,573]

8. We are confronted first with certain fundamental questions about our power—about what we can and may do herein. The New York Public Service Commission has urged that the rates established in Opinion No. 546 "may not be reopened and modified retroactively." [19] The same position was taken by the Municipal Distributors Group (MDG)[20] whose brief, after citing extensive authority on retroactivity in rate cases, concedes us only the power to "commence new proceedings to consider whether changes in circumstances since issuance of the orders in this case in the Southern Louisiana Area war-

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[16] 42 FPC 1110 (1969).

[17] 36 F.R. 69 (1971).

[18] March 15, 1971. Commission Rule 1.30(c). [18 CFR 1.30(c)].

[19] Init. Br. p. 58.

[20] The Municipal Distributors Group consists of the Memphis (Tennessee) Light, Gas & Water Division and the American Public Gas Association.

rant prospective revisions of the prescribed rates." [21] Recognizing their inconsistency with the language of the Fifth Circuit, the MDG argued that "the ruling of the Fifth Circuit goes beyond its powers," and that "there is no occasion and no basis for the exercise of the court's equitable powers." [22]

9. On the other hand, predictably, all parties supporting prices higher than those prescribed in Opinion No. 546, particularly for "flowing gas," emphasized in their briefs not only the power but the duty of the Commission to modify the orders therein, either with respect to the rates themselves, or with respect to the refunds whose level would be determined by such rates, or both.[23] These briefs also emphasize the denial of certiorari by the Supreme Court.[24]

10. We will not depart from the letter or the spirit of the Fifth Circuit's instructions to us.

[13,574]

11. Our duty is to take all the action we believe necessary to reverse a downtrend of the exploration and development effort, thereby to increase the likelihood of augmenting the national inventory of proved reserves of natural gas. We would be derelict—we can think of no softer word—if we were to be guided by the legalisms of the past in seeking solutions to the problems which have grown like barnacles as this case has aged and its size has mounted. As far as we are concerned, in the prescription of just and reasonable rates, Opinion Nos. 546 and 546-A now perform no office.

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[21] Init. Br. p. 49.

[22] *Ibid.*, p. 52.

[23] E.g., Major Producers' Brief at p. 11.

[24] *Id.*

12. Without retreating from that position, but rather in the alternative, we do point out that even assuming, *arguendo*, that we must make all our adjustments with respect to gas committed since October 1, 1968, we find a very considerable grant of authority to us in the language we quoted in paragraph 4 from the Fifth Circuit's *per curiam* order on rehearing. The court there said that we might, on a proper record, find "refunds to be too burdensome." We briefly emphasize that we have a duty to the concept of fairness, in other words, to try to achieve an equitable spreading of the burdens and benefits of our orders.

[13,575]

13. Although we might frame an order which would fix flowing gas prices at the Opinion 546 level, while achieving the necessary incentives through different refund provisions and different and higher new gas prices and escalations, we think that such a result would have no advantage to the consumers and would create problems of achieving equity and fairness. Determining flowing gas prices, new gas prices, refunds, and incentives as we do herein, is preferable to the alternative urged upon us of loading all the burden of the required new incentives on higher prices for "new gas" only.

The Settlement Proposal

14. Very early in the course of the hearings convened for AR69-1, a motion was made to the presiding examiner for the convening of a settlement conference. Such a conference was convened on April 1, 1970, and after being continued from time to time culminated in a proposal being made to the Commission by the United Distribution

Companies (UDC)[25] on November 6, 1970, accompanied by a motion requesting its promulgation. The Commission ordered it made a part of the record in the order of December 24, 1970, wherein it also consolidated AR69-1 with AR61-2, and further stayed the effectiveness of Opinions 546 and 546-A.

15. In support of the settlement proposal are 32 major distribution companies representing 25 percent of the gas distribution operations in the United States, serving about 10.3 million customers at retail;[26] 55 gas distribution companies which supply gas service to more than 10 million customers;[27] *all* interstate pipelines purchasing gas from the Southern Louisiana area;[28]

[13,576]

and 46 natural gas producers, comprising 80 percent of the total gas production flowing from the area.[29] Distributors have traditionally been opposed to increases in producer rates, because it is in their interest to maintain the lowest possible wellhead price for gas consistent with adequate service to their customers. The Commission staff likewise supported the settlement proposal. Thus, the proposal is supported by the overwhelming majority of consumer, pipeline, and producer interests.

16. Two major producers opposed the settlement proposal *in toto*. Amoco Production Company and Mobil Oil

[25] The United Distribution Companies (UDC) are 32 major distribution companies.

[26] We classify gas distributors as groups representing the consumer interests, per *Austral, supra.* at 434, n. 86.

[27] Associated Gas Distributors (AGD).

[28] Pipeline Purchaser Group.

[29] FPC Form 301-B; see Exh. 45.

Corporation filed extensive briefs to us setting forth their opposition and presenting alternatives for our consideration, generally calling for higher new gas prices than those specified in the settlement proposal.[30] Other producers joined in the main brief of the producer group led by Humble Oil & Refining Company, but also elected to specify reservations concerning some aspects thereof.[31]

17. As indicated above, the legal position of the New York Public Service Commission and the MDG is that the Commission is without power to make adjustments called for in the settlement proposal.

18. We address first a procedural or technical question raised by Mobil, to the effect that the settlement proposal is not evidentiary, because it was not submitted by a party and cross-examined. On this ground, we are asked, as the examiner was, to strike the proposal. By our order of December 24, 1970, the settlement proposal was made a part of this record, with the opportunity for parties to present evidence regarding that proposal.[32] The settlement proposal is attached as Appendix A.

[13,577]

19. We find no merit in Mobil's contention. We have both a duty and a legal obligation to give consideration to a proposed settlement.[33] As indicated by our own rules, Section 1.18, settlement conferences "may be held at any time prior to or during such hearings . . ." Likewise, the

[30] Amoco and Mobil Initial Briefs.

[31] E.g., Hunt Oil Co., *et al.*, Continental Oil Co.

[32] Also, see our Order Denying Motion for Reconsideration by Mobil of February 10, 1971.

[33] *Michigan Consolidated Gas Co., et al* v. *F.P.C.*, 283 F.2d 204 (1960) at 224, cert. denied 364 U.S. 913 (1960).

Administrative Procedure Act specifically provides that an agency shall give all interested parties opportunity for offers of settlement.[34] Furthermore, we are not required to have unanimous consent of all participating parties.[35]

20. Although this Commission rejected a settlement proposal in Opinion No. 546, the dissenting opinion to Opinion 546-A, discussed the settlement process as a "way to resolve the hundreds or thousands of various combinations and permutations which the record permits, all within a zone of reasonableness." [36] The Fifth Circuit in *Austral* indicated that "[W]idespread use of the settlement technique would result in negotiation pitting market forces against each other on an aggregate scale, overseen by the Commission." [37]

[13,578]

21. The settlement proposal builds upon the *Permian*-[38] approved principles of a multi-tiered price, and it clearly reflects an attempt to conform to the mandate of the Fifth Circuit. Its principal provisions are addressed to ceiling prices before October 1, 1968, and subsequent thereto, for both onshore and offshore areas; a system of escalations, comparable to that in a settlement agreement earlier approved by us in Opinion No. 586; [39] it presents

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[34] 5 U.S.C. § 554(c).

[35] *Cities of Lexington, etc., Ky.* v. *F.P.C.*, 295 F.2d 109 (1961), at 121. Accord, *Atlantic Seaboard*, 37 FPC 244 (1967) at 250; *Hugoton-Anadarko Area Rate Proceedings*, Opinion No. 586, appeal pending, *sub. nom.* CA9, No. 71-1036.

[36] 41 FPC at 377, dissenting opinion of Commissioner Carver.

[37] *Austral, supra.*, at 434, n. 86.

[38] *Permian Basin Area Rate Proceeding*, 390 U.S. 747 (1968).

[39] *Hugoton-Anadarko, supra*, note 35.

incentive plans, one of which ties price escalations to the attainment on an industry-wide basis of specified reserves dedication goals and another would ratably forgive refunds with the commitment by individual producers of new gas reserves to the jurisdictional market in Southern Louisiana. The proponent of the proposal, UDC, summarized its provisions as follows:

a. *Ceiling Prices.* The following ceiling prices are prescribed:

(1) For Contracts Dated Prior to October 1, 1968:

Onshore	22.375¢
Offshore	21.375¢

(2) For Contracts Dated On or After October 1, 1968:

Onshore	26.0¢
Offshore	26.0¢

b. *Periodic Escalations of Ceiling Prices.* The ceiling prices applicable to contracts dated prior to October 1, 1968, shall escalate by one-half cent (0.5¢) per Mcf on October 1, 1973.

The ceiling prices applicable to contracts dated on or after October 1, 1968, shall escalate by one cent (1.0¢) per Mcf on October 1, 1974.

[13,579]

c. *Contingent Escalation of Ceiling Prices.* [For gas under contracts dated prior to October 1, 1968] when new gas reserves dedicated to the interstate market total 7½ trillion cubic feet of gas reserves in the Southern Louisiana area prior to October 1, 1977, the ceiling prices then in effect shall be increased by one-half cent (0.5¢) per Mcf.

Further successive increases of one-half cent (0.5¢) per Mcf in the ceiling prices shall be made when a total of 11¼ trillion cubic feet of new gas reserves have been committed to jurisdictional sales prior to October 1, 1977, and again when 15 trillion cubic feet of such new gas reserves have been committed to jurisdictional sales prior to October 1, 1977.

d. *Refunds.* Refunds in the total amount of $150,000,000 shall be made provided that any company having a refund obligation may reduce such obligation by one cent (1.0¢) for each Mcf of new gas reserves committed to a jurisdictional market in Southern Louisiana. Any new gas reserves used for the purposes of reducing refund obligations shall not apply in computing the contingent escalations prescribed above.

[13,580]

The Rationale for Acceptance of the Provisions of the Settlement Proposal

22. In the recently-decided *Texas Gulf Coast Area Rate* case, Opinion No. 595, May 6, 1971,[40] we did not have a settlement proposal before us. We did, however, promulgate a rate design and incentive plan which resembled in its main features the settlement proposal in this case. On October 27, 1970, by Order No. 413,[41] we terminated the rate filing moratorium provisions of AR61-2 and AR69-1. On December 24, 1970,[42] we specified that increased rate filings for gas flowing in the Southern Louisiana area could be made if the rates were no more than 22.375¢ per Mcf for onshore contracts before October 1, 1968, the rate prescribed in the UDC

[40] 44 FPC —— (1971).

[41] 35 F.R. 17041 (1970).

[42] 36 F.R. 69 (1971).

settlement proposal. The Commission has already treated the settlement proposal filed in this case as a useful guide for the exercise of its interim regulatory responsibilities and as an aid in coming to a rate design conclusion in *Texas Gulf Coast.*

23. We have more than a settlement proposal before us. We have the entire record made in the original Southern Louisiana proceedings, plus the record opened with the institution of Docket No. AR69-1 [43] and concluded after Docket No. AR61-2 was consolidated with it. The settlement proposal was obviously heavily influenced by the teachings of *Austral*, as the parties perceived those teachings, and so was the record made in conjunction with it. It is our duty to review that record and to make findings thereon, and to come to conclusions therefrom. Only if substantial evidence supports it can we approve the settlement proposal, and this means that we must analyze supply and demand, supply-cost relationships, and costing methodology. Rate design, incentives, refunds, and economic considerations, as the record permits insight into these matters must also be discussed.

[13,581]

24. The evidence presented to the examiner builds upon the *Permian*-approved costing methodology. The Supreme Court in *Permian* said that we were expected to indicate more precisely the formulae by which we intended to proceed,[44] and the Fifth Circuit in a footnote told the parties to get down immediately to the "real issue"—whether noncost elements (in context *a* noncost element) can be justified.[45]

[43] There were 7831 transcript pages including the testimony of 59 witnesses.

[44] 390 U.S. at 800.

[45] *Austral, supra,* at 441, note 110.

25. The record before us does not free us from problems related to imprecision of the data and to the great number of choices which have to be made among a wide range of possible assumptions. Estimating unit costs of gas is an improved process, but it is not capable of being made an exact mathematical process.

26. We discussed the underlying problems extensively in *Texas Gulf Coast.* Therein, we rejected what we termed a "tempting avenue" of differentiating between cost and non-cost elements, and accepted the *City of Detroit* requirement of cost-of-service "at least as a point of departure." [46]

27. The evidence in this record in the main was proffered and cross-examined as it related to the settlement proposal's provisions as to rate design, rates, and incentives for further effort for exploration and development.

28. We recognize a special responsibility to articulate our handling of the so-called gas supply issue. Supply and demand, we were told in *Austral,* must be treated in quantitative and qualitative terms; [47] findings must be made with respect to the financing of the supply search; [48] trends of demand for Southern Louisiana gas should be forecast; [49] and we must assess the consequences of our order.[50]

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[46] *Texas Gulf Coast, supra.* note 40, mimeo. at p. 5, citing *City of Detroit* v. *F.P.C.*, 230 F.2d 810 (CADC, 1955), *cert. denied sub. nom., Panhandle Eastern Pipeline Co.* v. *City of Detroit,* 352 U.S. 829 (1955).

[47] *Austral, supra.* at 443-4.

[48] *Id.*

[49] *Id.*

[50] *Id.*

29. As we did in *Texas Gulf Coast*, where appropriate we take note of matters which we may officially notice, and will call upon our informed judgment on the record before us. We will rely, where appropriate, upon the data reported to us and to other government resource-allocating agencies (*e.g.*, Department of the Interior) as such matters support the findings required by the *Austral* instructions.

30. Briefly, for example, we commend the parties for offering such evidence as Exhibit 4, which is an extensive study made by Stanford Research Institute, entitled, "Requirements for Southern Louisiana Natural Gas Through 1980." Exhibit 21, sponsored by the Major Producer Group (Humble Oil Co., *et al.*), is a Foster Associates, Inc., study on "Economic Evidence Pertaining to the Supply of and Demand for Natural Gas in the United States with Special Reference to the Southern Louisiana Producing Area." Also in a special category of evidence prepared for this particular record is a report by the certified public accountant firm of Arthur Young & Company, "Summary of Proved Natural Gas Reserves Reported in Response to Commission Order Dated March 17, 1970," Exhibit 27. A witness from the Petroleum Consultants firm of H. J. Gruy and Associates, Inc., submitted Exhibits 28, 29, and 30 for the Producer Group, all generally bearing upon gas supply in the Southern Louisiana area.

31. The rationale for our handling of the settlement proposal is sugested in what the Fifth Circuit said about the dissenting opinion in Opinion No. 546-A:

> "The thrust of the dissent, we think, is that the Commission should not have relied upon cost calculations floating in a vacuum but should have reviewed

its computations in light of supply, demand, and other market forces (a proposition with which we definitely agree), and should have given greater attention to the settlement agreement proposed by several of the parties." [51]

[13,583]

32. The New York Public Service Commission opposes our acceptance of the UDC settlement proposal. New York did not sponsor any witness in the proceedings. New York argued that other government policies besides FPC pricing policies (such as the leasing policies of the Department of the Interior) bear upon gas supply, and incentives for additional exploratory effort ought to be achieved, if justified at all, by adjusting the price for future gas discoveries only. By saying that "if the price for new gas-well gas does not provide a relatively attractive profit opportunity, gas revenues will flow into other investment alternatives," [52] they recognize the test against which our success will be measured. We regard New York's arguments as at least neutral or giving weight to a settlement proposal, because they recommend higher prices. Once higher revenues are conceded as being necessary, the Commission is entitled to consider both the questions of how much and how they are to be spread in light of the quasi-bargaining position of the parties.

[13,584]

33. MDG opposes the settlement and denies the need for further incentive. The so-called municipal distributor group consists in these proceedings of the utility division of one municipality and an association of municipal gas distributors, many of whom have disavowed the

[51] *Austral, supra.* at 434.

[52] Reply Br. 2-3.

contentions of their association; in the earlier proceedings, it consisted of many individually joining cities.[53] However, MDG does not insist that there is no "supply problem." Instead, it raises the serious charge that an admitted supply problem is traceable to the Commission itself and the producers. The expressed rationale is that, since the Commission in Opinion No. 546-A said that there was no probative showing that the prices therein established will be inadequate to bring forth the optimum degree of effort by the industry, and stayed the effectiveness of those orders and broadened the proceedings, the shortage in effect is a fabricated issue:

> "The significance of the Commission's course of action ever since the issuance of Opinion No. 546 in September, 1968, is that each step has indicated that the Commission was not going to stand by that Opinion, but was going to modify drastically its attitudes, procedures and rates, because of its fears that the producers would not perform adequately their function of supplying the nation's gas requirements unless they were given rates more satisfactory to themselves. Thus, the 'gas shortage' quickly became the most potent factor in the industry's efforts to obtain higher rates." [54]

[13,585]

34. We reject that charge, of course. As the gas supply issue bears upon how we should treat the settlement proposal before us at this time, we call attention to another contention of MDG, and another example of the

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[53] In Opinion No. 546, MDG represented 57 municipal gas distribution systems. On the Initial Brief for MDG in this proceeding, they represent Memphis Light, Gas and Water Division and the American Public Gas Association.

[54] Init. Br. p. 8.

kind of reasoning process its brief reflects. Incredibly, MDG cites the settlement offer which the Commission rejected in Opinion No. 546 as support for the proposition that the producers have enjoyed ample incentives. After summarizing the terms of that proposal, MDG says:

> "This settlement offer completely belies the contentention that regulated rates in the 1960's curtailed exploration and development of gas. The tentative effective certificate rates required by the orders of the Commission had in general been *higher* than the rates proposed by the producers in settlement." [55]
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> * * * *
>
> "It is inconceivable that the producer settlement offer in 1968 was so far out of line with the industry's requirements that its acceptance would have led to serious inadequacies of supply." [56]

35. The substantive contentions of MDG are discussed later. We think the above-quoted language is generally supportive of our favorable acceptance of a settlement, when offered in good faith and otherwise supported by the evidence.

36. The two dissenting major producers have presented strong arguments that we should make our determinations independent of, and higher than, the settlement proposal. The substance of their argument is that the rate design in the settlement proposal unlawfully discriminates against producers who in the past cooperated with the Commission and consumer and distributor interests by executing company-wide settlements, and made refunds which reduced their revenues to the general

[55] Init. Br. p. 9.

[56] Init. Br. p. 10.

level of the Commission's Section 7 guideline level,[57] and in favor of producers who did not enter into such rate settlements or otherwise reduce their contested Section 4 and Section 7 rates. The latter, these non-consenting Producers argue, in the meantime have collected rates considerably higher than those realized by the group which settled. Under the proposed settlement, as Mobil points out, one group is in effect rewarded for their relative intransigeance—they will be able to retain revenues collected up to the agreed 22.375¢ (where their contracts permit) and achieve a favored revenue position.[58]

37. Exhibit 96 is Mobil's alternative rate design proposal, whose main feature when compared with the settlement proposal is a 30¢ price for contracts dated after October 1, 1968, and a company-by-company refund pattern utilizing the *Grigsby* formula,[59] and based upon the Commission's previous guideline determinations. In other words, a higher price for new gas, coupled with a procedure for retrospective achievement of equity among the Southern Louisiana producers, is suggested as a preferred substitute for the industry incentive pattern of the UDC settlement proposal.

38. The logic of this position cannot be assailed. Candor requires us to admit that some of the predicted inequities as among producers will surely occur, and those who have attempted to work "within the system" are comparatively disadvantaged. We have chosen to go the route of the alternative rate design suggested in the UDC proposal. The inequitable consequences which might

[57] Mobil and Amoco Initial Briefs.

[58] Mobil Initial Brief.

[59] *Jack W. Grigsby (Operator)*, 32 FPC 529 (1964).

flow from it have to be compared with its advantages, and as our later sections of this Opinion will make more clear, no scheme can be free of some inequities. The broader acceptability of the UDC proposal with the distributor group impels us to act as we do.

39. In summary, our findings herein, based upon the record evidence in these proceedings, lead us to accept the UDC settlement proposal and to find that the rate design and

[13,587]

rate levels recommended therein are just and reasonable. Moreover, its wide support helps to provide stability in prices in the area and relieve the administrative burdens of the Commission,[60] and to reduce the probabilities of future litigation.

The Evidence—Gas Supply

40. Having attempted to set forth in broad terms how we look upon the settlement proposal and the entire record before us, we turn now to the evidence itself, on supply and demand, on supply-price relationships, on costing, and on economic matters, including what the Fifth Circuit referred to as "industry consequences." It will be seen that the evidence supports the conclusion that there is a worsening gap between supply and demand, and that price must have a major responsibility for eliciting new supplies. There is an adequate cost basis for the results we find to be just and reasonable and in the public interest, notwithstanding the fact that we have leaned heavily upon the settlement for the rate design and for the refund provisions.

[60] Accord, *Mississippi River Fuel Corp.*, 25 FPC 603 (1961).

41. The above data are either in the record, or before us officially. What the data mean, in the context of the process of fixing just and reasonable prices for gas from the Southern Louisiana area, is a matter seen differently by different parties. The producer group, for example, adverts to the quotation by the Fifth Circuit of Justice Jackson's language from Colorado Interstate:

> ". . . (I)f the supply is not too plentiful and the price is not sufficient incentive to exploit it and fails to bring forth the quantity needed, the price is unwisely low, even if it does square perfectly with somebody's idea of return on a 'rate base'." [61]

42. MDG, on the other hand, besides saying that the supply shortage is not price-induced, says that "it is not a shortage in reserves, but only in proved reserves as reported by the American Gas Association." [62] This contention is followed up by the innuendo of the contention that "the sharp decline in the supply picture in 1968-69 is revealed by the above record evidence to be caused . . . largely by revisions in the estimates made by an 'authoritative' committee of the gas industry." [63] And it is suggested that "there exist several methods by which producers may withhold large quantities of reserves from the official reported industry computations, at a time when such withholding is greately to their advantage." [64]

43. The Pipeline Purchaser Group emphasizes the fact that the Southern Louisiana area has been supplying a

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[61] *Colorado Interstate Gas Co.* v. *FPC*, 324 U.S. 581 (1945) at 612, cited in *Austral* at 443.

[62] Init. Br. p. 11.

[63] *Ibid.* at p. 15.

[64] *Ibid.* at p. 17.

progressively increasing share of the Nation's gas requirements since 1956, and asks the question, to what extent should Southern Louisiana be called upon to meet the incremental requirements of other supply areas. Even if Southern Louisiana should be called upon for no more than the present approximate one-third of the Nation's gas supplies, there would still be a need for an increase in gas reserve additions, from 7.6 trillion experienced in 1968, to 9.5 trillion in 1975, and 11.5 trillion by 1980. The Pipeline Group's projections are supported by the Gruy study referred to above (*supra.*, para. 30).

[13,589]

44. The New York Public Service Commission states in its brief that supply considerations do not prove the superiority of any one party's recommendation over any other recommendation. The Associated Gas Distributors [65] go to the pragmatic reality that pipelines which rely on gas from Southern Louisiana have not been able to purchase new supplies in sufficient volume to meet their market demand. That group believes that the cause of the shortage, or the volume of uncommitted proved gas reserves are "issues" immaterial to the finding of a supply shortage defined in terms of the pipelines being able to buy enough gas.

45. MDG is the only briefing party to contend that supply data "results in overstatement of new gas costs." [66] The contention is made, and reference is made to a discrepancy between data in Exh. 8-A and staff Exh. 31-A, Sch. 1, which compares a Form 15 reserve figure reported by the pipelines of 34.1 TCF of proved recoverable reserves in the offshore area, while AGA figures for the

[65] Reply Br. pp. 7-8.

[66] Reply Br. p. 14.

same category of reserves is 24.1 TCF. But neither in brief nor in the evidence does MDG show how or whether this discrepancy infests the calculation of new gas costs, or to what extent, if any.

46. We have examined all the evidence on this subject most carefully. The Committee on Natural Gas Reserves of the American Gas Association compiles estimates of reserves which are published in an annual report entitled, "Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the United States and Canada."[67] This report has been published annually since 1945 and has been extensively relied upon by the industry, the government, banks, and other financial institutions,[68] and this Commission.[69]

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47. The methodology for it was detailed by witness John Jacobs. He described the procedures used by the several subcommittees in preparing gas reserve estimates and by the Committee on Natural Gas Reserves in reviewing reserve estimates.[70]

48. AGD Witness Bass, whose testimony was cited by MDG in the effort to impeach the AGA data, testified that discovered reserves may be larger than those reserves reported to, or by, the AGA. This witness described several methods by which producers could withhold reserves from the reported reserves by AGA (T.

[67] Exhibit 49 is the 1969 annual report, published jointly by the AGA, American Petroleum Institute, and the Canadian Petroleum Assn.

[68] *E.g.* T. 1413, 4762, 4781.

[69] *Permian I*, 34 FPC at 197, and *South Louisiana I*, 40 FPC at 552.

[70] T. 1411-51.

2340-41). However, several witnesses in these proceedings testified to the reliability of AGA data, particularly in response to these allegations. For instance, witness Jacobs indicated that reserves from so-called expendable wells were treated in the same manner as other reserves by the AGA (T. 1442). In addition, there was no probative showing of producers holding large blocks of undeveloped reserves through unitization, in the offshore area (T. 5569-70).

49. Staff witness Zabel discussed and explained Exhibits 31 and 31-A, which were introduced for the purpose of supplying a gas reserve base for the deliverability projections later presented by another staff witness, James Hicks. He also presented "historical trends in the gas reserves and production of the interstate pipelines as reported in FPC Form 15 for 1963-1968." No contention was made that indicated that Form 15 impeached or substantively contradicted the reserve data gathered by AGA. So far as gas reserves are concerned, Form 15 is a report furnished to the FPC by pipelines. Form 15 data and AGA data directly compare on the *trends* they reveal. The differences in aggregated reserve figures exist in several reporting areas of the country.

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50. Staff witness Hicks' testimony further clarifies his objective of evaluating deliverability projections, a purpose for which Form 15 data would be basically primary in the sense of comparing the pipelines' reported difficulties in meeting their commitments with their own reports to the Commission.

51. Curtailments in service to customers by pipeline and distributor companies are before us in a number of

proceedings, including *United Gas Pipeline Co.*, Docket No. RP71-29, *Northern Natural Gas Co.*, Docket No. RP71-89, and *Natural Gas Pipeline Co. of America*, Docket No. RP70-42. We take notice of these actions and other actions of pipelines and distributor companies. A series of orders we issued directed to amelioration of gas supply problems, including specifically Order No. 402, Order No. 402-A, Order No. 418 and Order No. 431 also bear upon this. An adequate gas supply is essential for efficient utilization of pipeline investment in transmission facilities to provide required service at a reasonable cost to the consumer. We thus find a critical shortage of gas in the United States.

52. AGA and Form 15 data show similar trends of reserves and reserve-to-production (R/P) ratios. AGA data indicates a steady decline in the national R/P ratio from 19 in 1963 to 13 in 1969.[71] Form 15 data indicates a similar decline in the national R/P ratio from 20 in 1963 to 14 in 1969.[72] The American Gas Association reserve data is not impeached, in our opinion, in this discrepancy.

53. This Commission in this case ordered that producers furnish data relating to the volume of uncommitted reserves in Southern Louisiana.[73] Based upon the individual producer

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responses, the amount of uncommitted reserves available for sale in Southern Louisiana as of December 31, 1969,

[71] Exhibit 49.

[72] *The Gas Supplies of Interstate Pipeline Companies*, 1969, FPC S-207.

[73] 43 FPC 444 (1970).

was 2.6 trillion cubic feet.[74] A staff supervised audit confirmed the amount of these uncommitted reserves.[75] The evidence does not show substantial amounts of any uncommitted reserves available for sale in Southern Louisiana.[76]

54. The apparent "discrepancy" results from differences in terminology and definition. The terms "proved reserves" and "dedicated reserves" are not necessarily synonymous. For instance, reserves may be reported to the AGA in the year of discovery, while Form 15 data may not reflect such reserves until there is a contract with a producer and a certificate from the Commission. Differences are more likely when estimating gas reserves in a relatively undeveloped area, such as the federal domain. Reserve estimates, even though scientifically founded,[77] require the use of informed judgment of geo-

[74] Exhibit 27-A.

[75] T. 5190-5204, 5480-82.

[76] The 2.6 trillion cubic feet in uncommitted reserves represents about 3 percent of total 1969 year-end proved reserves in Southern Louisiana and less than 1 percent of total U. S. proved reserves.

[77] Basic to the informed initial estimation of reserves is a formula which yields the number of thousands of cubic feet of gas in an acre foot of a geological structure which contains natural gas or gas associated with oil as a result of a fault, a dome, a strati-graphic trap, or some other anomaly. The formula, subject to expert modification and application, must take into consideration certain measurable physical factors such as the saturation of connate water, the presence of oil, shrinkage due to removal of liquid hydrocarbons or inert gases, the original pressure, the base pressure, the base temperature, the original temperature, the deviation factor, the porosity and the net pay. Once the factors have been adopted, the formula must be applied to an underground geological structure. This structure is projected by expert opinion applied to evidence gleaned from drill holes, electric well logs, and other geological and geophysical data. The expert then makes a volumetric estimate, using the formula and the presumed structure. As natural gas fields are developed and

[Footnote continued on page 608]

logical experts. Finally, the AGA and the staff used different methods in allocating the reserves of gas

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fields along the boundary between Zones 1 and 2 in Southern Louisiana.[76]

55. In this connection, on June 25, 1971, the American Public Gas Association filed a petition to reopen these proceedings for the taking of additional evidence. The additional evidence primarily concerns the alleged discrepancy in the estimation of reserves for the Southern Louisiana federal domain, and relate to a series of newspaper articles which assert that certain intra-office

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memoranda relate to this problem. The petition requests reopening so that the alleged discrepancy in reserve fig-

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[77] [Continued]

produced, more information becomes available, including data concerning the decline in pressure. The formula can be expressed, in part, as follows by:

$$\text{Mcf/acre foot} = 43560 \times h \times \phi \times (1 - Scw) \frac{(P2)}{(P1)} \frac{(T1)}{(T2)} \frac{(1)}{(Z)}$$

See, *e.g.*, *Applied Petroleum Reservoir Engineering*, by B.C. Craft and Murray F. Hawkins, Jr., Prentice-Hall, Inc. (Englewood Cliffs, N.J.: 1959). Scw=saturation connate water, P2=orig. pressure, P1=base pressure, T1=base temperature, T2=orig. temperature, Z=deviation factor, h=net pay, ϕ=porosity.)

[78] Staff Witness Zabel method at T. 1854-55 yields 3.7 trillion cubic feet. AGA allocation method explained in letter to Witness Jacobs of March 27, 1970, circulated to all parties, and on May 18, 1970, where Witness Jacob's reply of May 5, 1970, was transmitted to all parties. The AGA method allocates 1.6 trillion cubic feet.

ures may be examined, and requests public disclosure of the memoranda referred to in the newspaper articles.[79]

56. Briefly, we add one additional observation. For "costing", discussed in this opinion beginning at paragraph 107, the data on reserves is used to determine productivity, or number of Mcf of gas per foot of drilling. Paragraph 2 of petitioners' motion states that "any understatement of reserves discovered would result in an overstatement of the costs per foot of successful gas well footage drilled and a corresponding higher area rate price for gas". What is sought is the norm, or the average, and the averaging process would tend to make adjustments or "discrepancies" in reserve additions of minimal importance. It is also to be noted that productivity is derived from national, as opposed to area data, in determining a range of reasonable costs.

57. Staff experts from the Commission's Bureau of Natural Gas, such as Witnesses Baker and Zareski testified as to the reliability of AGA reserves data.[80] This Commission must and does place probative value on the testimony of these expert witnesses. The difference in the Southern Louisiana federal domain reserve figures was made a matter of record, as noted herein. Moreover, the "studies, memos and letters" by FPC personnel, referred to in paragraphs 1 and 4 of the petition, were likewise disclosed to the public. Petitioner was previously afforded an opportunity to cross-examine the witnesses with respect to this alleged discrepancy and to offer rebuttal evidence. Thus, the evidence referred to is not newly discovered.

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[79] By order issued in these proceedings on July 2, 1971, the Commission authorized the Secretary to place in the public files associated with this case all intra-agency memoranda which he could identify from the articles or which were related thereto.

[80] T. 4003, 4055, 4074-5, 4132, 4137, 4166.

58. Petitioner refers to "40 percent errors in some of the industry data" in paragraphs 2 and 4. We would recognize again that reserve estimates among experts tend to fluctuate markedly in these areas which are relatively undeveloped, such as the offshore area. However, we would point to Appendix A, Sheets 1 and 2 of Staff Counsel's Answer in Oppossition to Petition to Reopen Proceedings, July 6, 1971 (reproduced *infra.*). Inasmuch as production, the denominator of the R/P ratio, is a known quantity, the "discrepancy" between the reserve estimates of AGA and Form 15 data in the Louisiana Federal Domain, has existed since 1963, or prior to the first area rate proceeding (i.e. *Permian*). Moreover, as indicated on these appendices, the national R/P ratios and the Louisiana Federal Domain R/P ratios clearly parallel one another, as far as trends, during the 1963-1969 period. Inasmuch as Form 15 data represent over 70 percent of domestic proved reserves, it serves as a check for the trends in AGA data. Excluding the federal domain area, the 1969 national R/P ratios were 13.1, using AGA data, and 13.4, using Form 15 data. Thus, nationally, and for purposes of costing new gas, there are no significant differences among the two reserve estimates.

59. For the reasons stated herein, we find the AGA reserve data is reasonably reliable for the purposes used herein. Accordingly, and because petitioner has not raised any new evidence, we deny the petition to reopen.

APPENDIX A

FORM 15 RESERVES, PRODUCTION, AND R/P RATIOS
(Billion Mcf at 14.73 psia @ 60°F)

Year	Year End Reserves	Annual Production	R/P Ratio
	Total U. S.		
1963	192.0 [1]	9.6 [1]	20.0-1
1964	192.5	10.3	18.7-1
1965	194.8	10.5	18.6-1
1966	198.4	11.3	17.6-1
1967	202.1	12.0	16.8-1
1968	198.7	12.8	15.5-1
1969	191.5	13.7	14.0-1
	Louisiana Federal Domain		
1963	14.0 [2]	0.5 [2]	28.0-1
1964	14.6	0.6	24.3-1
1965	17.1	0.6	28.5-1
1966	18.9	0.8	23.6-1
1967	21.2	1.0	21.2-1
1968	23.7	1.1	21.5-1
1969	27.7	1.5	18.5-1
	Total U.S. Minus Louisiana Federal Domain		
1963	178.0	9.1	19.6-1
1964	177.9	9.7	18.3-1
1965	177.7	9.9	17.9-1
1966	179.5	10.5	17.1-1
1967	180.9	11.0	16.4-1
1968	175.0	11.7	15.0-1
1969	163.8	12.2	13.4-1

[1] FPC Publication entitled "The Gas Supplies of Interstate Natural Gas Pipeline Companies 1969".

[2] Exhibit 31A, page 2.

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AGA RESERVES, PRODUCTION AND R/P RATIOS
(Billion Mcf at 14.73 psia @ 60°F)

Year	Year End Reserves	Annual Production	R/P Ratio
	Total U.S.		
1963	274.5 [1]	14.6 [1]	18.8-1
1964	279.4	15.3	18.2-1
1965	284.5	16.2	17.5-1
1966	286.4	17.5	16.4-1
1967	289.3	18.4	15.8-1
1968	282.1	19.3	14.6-1
1969	269.9	20.6	13.1-1
	Louisiana Federal Domain		
1963	11.4 [2]	0.6 [2]	19.0-1
1964	14.1	0.7	20.1-1
1965	16.9	0.7	24.1-1
1966	19.4	0.9	21.6-1
1967	22.3	1.2	18.6-1
1968	24.2	1.5	16.1-1
1969	24.1	1.8	13.4-1
	Total U.S. Minus Louisiana Federal Domain		
1963	263.1	14.0	18.8-1
1964	265.3	14.6	18.2-1
1965	267.6	15.5	17.3-1
1966	267.0	16.6	16.1-1
1967	267.0	17.2	15.5-1
1968	257.9	17.8	14.5-1
1969	245.8	18.8	13.1-1

[1] Annual AGA Reports 1963-69. Excludes Alaska.

[2] Exhibit 8A, Sheets 1 and 2.

60. On July 14, 1971, the American Public Gas Association filed a supplement to its petition to reopen, filed June 25, 1971, to incorporate as an offer of proof the documents which this Commission made public by its order of July 2, 1971. Paragraph 4 of this supplement alleges "the *ex parte* staff presentations to the Chairman on the reserves data issue violate the Administrative Procedure Act." On the contrary, the Administrative Procedure Act, as it applies to such matters, is specifically inapplicable to "proceedings involving the validity or application of rates, facilities, or practices of public utilities" 5 U.S.C. § 554(d). Moreover, the courts have interpreted this exclusion in the Administrative Procedure Act, as being directly applicable to this Commission.[81] For the reasons stated herein, petitioners' request to reopen these proceedings for receipt into evidence of these documents is denied.

61. The evidentiary fact which most concerns us is not in dispute: the traditional trend lines for measuring adequacy of supply, namely, reserves to production (R/P) and findings to production (F/P) ratios, are in a declining mode. In Opinion No. 546 it was stated that the ratio of new supply to net production of natural gas, both in the United States and for the Southern Louisiana area, was not significant in helping to determine reasonable rates.[82] The statement was erroneous and non-supported, and we now correct it.

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[81] *E.g., International Paper Co.* v. *F.P.C.*, 438 F. 2d 1349 (CA2, 1971), petition for certiorari pending, No. 70-216, October Term. 1971.

[82] 40 FPC at 552 (1968).

62. Exhibit 21, Schedule 5, corrected to include 1970 reported data, shows the erosion of the Reserves-Production Ratio steadily to a current level of 11.9 to one (excluding Alaska). On a three-year moving average, the findings to production ratio is .51 to one, illustrating most poignantly that the R/P ratio is headed for even more steep declines, unless this trend is reversed.

63. The Fifth Circuit Court of Appeals said it was "troubled greatly by the fall in the FP ratio." [83] It cited a 1969 Staff Report of the FPC as showing the Staff's concern about future shortages.[84] That Staff Report, of course, is in the record here, updated to include 1970 data, as Exhibit 9. Although that Staff Report indicated a goal or "optimum reserve additions" for 1969 and 1970 of 20.2 and 21.7 trillion cubic feet respectively, actual reserve additions in 1970 were barely half the targeted figure.

[13,600]

64. We omit Alaskan additions. If we were to include Alaska's proved reserves, as reported by AGA, the R/P ratio for 1970 would be 13.2 to one, and the nationwide F/P ratio would be 1.7 to one, but Alaskan reserves cannot be delivered to the lower 48 states until pipelines have been constructed and certified, which we estimate will be no earlier than 1976-1977.

65. Our minimum objective has to be action to halt and hopefully to reverse the downward trend of the reserves-to-production ratio. It is from the Southern Louisiana area that we reasonably can expect the greater portion of total demand for jurisdictional gas to be satisfied in the next few years.

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[83] *Austral, supra.* at 435, n. 87.

[84] *Austral, supra.* at 415, 438.

Gas Demand

66. Demand for gas as a "pollution-free" fuel is increasing and the price of alternative fuels in relation to gas is going up (Exh. 34, Sch. 5a). Demand for gas, in economic terms, does not differentiate between the so-called interstate and intrastate markets. Statistics can be broken out to the demand for gas in Louisiana and in states other than Louisiana, but on the supply side, unless we are willing to create a separate regulatory scheme for the offshore areas under federal regulation by definition, we have to deal with the supply in aggregate terms. Proceeding as we were instructed to by the Fifth Circuit, we look toward the conditions which will keep the supplies flowing. Thus, we consider market requirements for Southern Louisiana gas, both interstate and intrastate, and match the markets with supply on the same basis.

67. The comprehensive presentation from the Pipeline Purchaser group,[85] principally the Stanford Research Institute study, is both historical and predictive. The authors of the SRI study dealt with potential markets for each of the forms of fuel available to the United States, and made judgments on the role which new or supplementary forms of fuel would have. They also presented estimates on energy requirements by end use, and trends and probable impacts of changes in price of various fuels, including natural gas.

68. Mr. Sherman H. Clark,[86] Director of Energy and Resources Economics of the Stanford Research Institute, projected for the United States as a whole a total gas demand increase from 19.9 trillion cubic feet in 1968 to

[85] Exhibit 4.

[86] T. 957-1004.

34.5 trillion cubic feet in 1980. For the Southern Louisiana area, production requirements were estimated to increase from 6 trillion cubic feet to 9.5 trillion cubic feet in 1975 and to 11.5 trillion cubic feet by 1980.

[13,602]

69. These estimates are impressive. No party opposing the settlement proposal—either producer opponents or the Municipal Distributors and the New York Public Service Commission—sponsored a similarly comprehensive study, and we do not understand them to argue for lower supply goals.

70. It is not our duty to fix a rate to meet any and all possible demands for natural gas. When all demands for natural gas were being met, by and large, that is, from the beginning of the post-World War II expansion of the pipelines until the latter part of the 1960's, it was possible to indulge in the luxury of theorizing about maximums and minimums in level of service. As we see the situation today, there is ample justification for our fixing as one immediate goal a containment of the panic psychology which fears of shortage always engender. Actual shortages are most significant as they portend for the whole country problems in gas supply, and that psychological pressure is being keenly felt right now. Therefore, we will not make our future task more difficult by setting supply goals which, if they are later not met, will lend a false credence to the negativism about our resources capability which is already spreading widely. The rate level and rate design features of the settlement proposal give us a starting point for proceeding in an orderly fashion.

71. The main producer group, relying on the Future Requirements Committee data, forecast a national demand

level in 1980 of 33.2 trillion cubic feet without giving effect to the future impact of air pollution abatement controls.[87] We de not set this as a target or goal, although we expect the demand to be at least that high.

72. The producer evidence as to the decline in drilling activity (Exh. 21, Sch. 8, updated in brief) shows a 28-year low. This figure is not factually controverted, but the significance of the decline was the subject of argument by both New York and MDG. Basing their contentions on staff

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exhibits on exploratory activity, they argue that restraints should be applied to the expansion of natural gas markets, and at the same time argue that once Southern Louisiana is decided, the disincentive of the pendency of the proceedings will give way to the favorable aspects of exploration in Southern Louisiana, mainly a high expectation of success in relation to effort.

73. On the supply side of the equation, the producers presented evidence on various supplemental sources of gaseous energy. We find that supplemental gas supplies will only be available at prices substantially higher than that of domestic natural gas.

Supply-Price Relationships

74. Starting from the premise that we are not bound to provide a price to satisfy all gas demands, we turn to discussion of the relationship of price levels to supply.

75. Earlier we referred to the argument asserted by MDG that the Commission itself said in Opinion 546-A that "no probative showing . . . had been made in [the

[87] Exhibit 21, Sch. 12.

pleadings seeking rehearing of Opinion 546] indicating that the prices . . . will be inadequate to bring forth the optimum degree of effort by the industry." We disavow the standard implicit in that statement. It is not appropriate or fair to say that it must be shown by the opponents of any given rate determination that it is insufficient. The response of the natural gas industry to the price of the gas, whether that price is fixed by the FPC or by other market forces, can only be predicted by assuming that a great number of other factors are going to remain constant. There is no way for any record to prove that such will be the case, and at this moment in history there is every reason to assume that such assumptions are not even much good for the making of academic studies. The area is judgmental in the extreme.

[13,604]

76. Nevertheless, what has happened in the past is capable of being proved, and progress is being made in devising techniques for extrapolating the trends evident from market in investment performance in the past into useful guides for determining what regulators should do in fixing prices or other matters to control future conduct.

77. We accept the producer contention that the conventional concept of supply elasticity—commonly defined as the quantities which would be forthcoming at a given time at a particular price—is a concept exceedingly difficult to apply to natural gas.[88] The many variables other than price, such as technology and cost of input resources, cannot be readily assumed. As witness J. Rhoads Foster

[88] E.g., Major Producer Brief at p. 71. We would note that supply elasticity is usually defined as the percentage change in quantities supplied resulting from a given percentage change in price.

said,[89] the relationship between price and supply brought to the market over time depends upon numerous factors, including monetary inflation, changes in real cost of input resources, availability of input resources, changes in alternative investment opportunities, development of new producing areas, size of prospective reservoirs, changes in business confidence, degree of directionality of exploratory effort, changes in industry technology, and other factors influencing business decisions.

78. The only other witness who tried to chart a course for us was the staff's witness, Dr. J. Daniel Khazzoom,[90] and he substantially weakened his own efforts at quantification by emphasizing the "dwindling resource" effect, by offsetting technological advances. We understand him to mean that in the past, advances in technology, *e.g.*, improved seismis techniques, have caused the supply curve to underestimate

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the response of new discoveries to gas price, while conversely, where the "dwindling resource" effect—for each Mcf of gas discovered, the total of the finite number of opportunities is correspondingly reduced—dominates, the estimated curve will overestimate the supply-price response.

79. The other additional concept he discusses is the time frame, which he put this way—the more new field discoveries we want and the sooner we want them, the more gas price will have to be increased over and above what is indicated by the estimated gas price coefficient. This point, he said, applies with greater force, if it is indeed true that the sample period was dominated by shifts of the dwindling resources variety.

[89] T. 1720-32.

[90] Exhibit 46.

80. We are uncomfortably aware, therefore, that under these conditions the influence of price on supply must be viewed as a matter for the application of informed judgment, not as a subject susceptible to precise statistical measurement.

81. We have no difficulty, of course, in concluding as both these witnesses do, that there is a strong positive relationship between price and supply, particularly in the sense of a positive relationship between price and exploratory effort. (Exh. 24). We do not accept fully the suggestion that the correspondence between gas exploratory drilling and changes in gas development footage drilled two years later is significant. The number of variables already discussed, and particularly the technology and dwindling resource factors, make us hesitant in leaping to conclusions from the data submitted.

82. Finally, we should comment on the staff's effort to assist us with the econometric submission. In past opinions, we have encouraged more studies along this line by the staff and other parties, in the expectation that more reliable results will be possible with further experimentation.[91]

[13,606]

84. The completely new econometric model sponsored by the staff in the AR69-1 phase of this proceeding consists of a set of qualitative statements, in the form of mathematical equations, about the causal relationships between annual additions to proved gas reserves, on the one hand, and the major economic determinants, on the other. Prominent among the latter are the natural gas price, oil price, and natural gas liquids price. The quantification of the model was estimated from historical data for the pe-

[91] 34 FPC 187, 40 FPC 625-6.

riod 1961-1969 for 21 districts which contributed approximately 90 percent of the total new gas discoveries.

85. The main emphasis is on gas discoveries. "They constitute the propelling force behind gas supply, and of the two broad relationships we will be estimating in this study, discoveries are (qualitatively) the more important." [92] Secondly, the model is a national model, not a model for the individual districts. While the model uses observations for each district, "because this procedure is superior to the alternative of estimating from the totals for the whole country—partly because it allows for a fuller interplay of the data," [93] Witness Khazzoom cautioned that "the forecasts for the individual districts were in general more hazardous." [94] Thirdly, "[T]he model is not intended to be a substitute for judgment. Rather, it is intended as a tool to be used by the Commission in coming to a judgment . . . . A model is absolutely *not* intended for mechanical use." [95]

86. Witness Khazzoom said the model could be used by the Commission to evaluate the response of gas supply to alternative levels of ceiling prices on a nationwide basis. His assumed range of nationwide price increases from 1¢ per Mcf to 15¢ per Mcf yielded hypothetical annual discoveries for his 21 districts for the years 1971-1984. To estimate the probable level of total gas supply in any future year, he analyzed the past ratio of extensions and revisions to discoveries and applied it to the projected discoveries.

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[92] Exhibit 16, p. 3.

[93] T. 6810.

[94] *Ibid.* Also Exhibit 46, p. 134.

[95] T. 6813.

87. We do not accept the quantification in the testimony nor do we even suggest that Dr. Khazzoom's nationwide projections from the staff's econometric model confirm the reasonableness of the settlement prices in the Southern Louisiana area. They are consistent with our conclusion based upon other evidence in the record respecting the necessity of price increases. Knowledge of the general magnitude of past price-supply relationships is essential in reaching a judgment about the probable future response of supply to price, although we must of course heed Dr. Khazzoom's warning against uncritical reliance on estimates which are premised upon the continuance of past relationships and against the application of nationwide forecasts to establish a supply curve in the area in question.

88. The Producers sponsored rebuttal testimony to show major deficiencies of the econometric model. The Producers' major criticisms are directed in part toward the reliability of the district forecasts, for which Dr. Khazzoom disclaims statistical reliability, and in part toward the model's limitations because of technical flaws, data defects, and the omission of certain factors which would affect gas supply. In addition, the Producers call attention to an underestimate of 43 percent in the model's forecast for 1970.[96]

89. Rather than eliminating the need for informed Commission judgment, the model provides an analytical format for the application of judgment in a more systematic fashion, and it is useful, in a general way, for testing the judgments implicit in this decision. The Commis-

[96] Exhibit 46, p. 162, Col. 2, estimated 2.68 trillion cubic feet of new gas discoveries in 19/0, whereas actual discoveries for the 21 districts were 4.74 trillion cubic feet.

sion is mindful of the specific requirements set by the Court in *Austral* and interprets the model not as a formula to obtain precise quantification of the future supply response to prices—an impossible objective by any method in our view—but as an instructive experimental effort, complementing other exhibits and testimony upon which we rely for our specific findings and conclusions.

[13,608]

90. A reasonable target level of service for Southern Louisiana jurisdictional sales is between 45 and 50 trillion cubic feet for the 1971-1975 period. To achieve this level, while maintaining deliverability, will require dedications of new gas reserves to the interstate market of approximately 60 trillion cubic feet for the same period.[97] The evidence cannot persuasively indicate the amount of new gas reserves that would be discovered in Southern Louisiana as the result of any specific rate, but it is our judgment that the incentives and rate levels we have established herein will encourage producers to increase their exploratory and developmental efforts in the Southern Louisiana area, particularly offshore.

91. Summarizing, there exists a positive relationship between gas contract price levels and exploratory effort; no reliable quantitative forecasts may be made by increments of additional gas supply resulting from specific increased gas prices; increases in ceiling prices which yield increases in producer revenues will result in expanded gas exploration activity; and the adequacy of expanded gas exploratory activity in terms of sufficiency

[97] Gross additions to reserves in trillions of cubic feet from Southern Louisiana have been 7.8 TCF in 1965, 5.5 TCF in 1966, 8.2 TCF in 1967, 8.0 TCF in 1968, and 4.2 TCF in 1969. Exhibit 21, Schedule 42.

of gas supply in relation to gas demands must be determined by continued Commission observation of the results of our decisions.

Industry Consequences

92. There has been, in recent years, inadequate capital formation in the natural-gas producing industry. Moreover, the industry's difficulties in meeting the market requirements for natural gas have coincided with, and may have contributed to, a generally tight supply situation for all fuels and energy sources.[98]

[13,609]

93. Capital formation, for gas exploration and development, has been declining since 1957 [99] and has continued to be in short supply,[100] relative to the nation's energy demands. The magnitude of the industry's capital requirements has continued to increase,[101] and, the costs of producing natural gas have continued to climb.[102] The industry itself, for a variety of reasons, has found alternative investment opportunities more attractive than the production of natural gas.[103] The price of natural gas in relation to other fossil fuels could be increased without significant effect upon inter-fuel competition.[104] The price

[98] T. 1339-40.

[99] Witness Winger at T. 1455.

[100] T. 6771-72.

[101] Witness Winger at T. 1463-65.

[102] *E.g.*, drilling costs increased 47 percent during 1963-1969, Exhibit 58. Schedule 10.

[103] Witness Foster at T. 1716.

[104] Exhibit 34, Witness Schantz at T. 1929-1952.

increases in natural gas have historically been less than for other fuels and the consumer price index.[105]

94. UDC Witness John Winger, Manager of the Energy Economic Division of the Chase Manhattan Bank traced the history of capital spending for domestic exploration and development for natural gas as reaching a peak in 1957 at the level of $5 billion, and then declining to a virtually constant level for the next ten years at $4.25 billion. Concluding that gas was chronically and significantly underpriced, the relatively higher rate of growth for gas than for oil did not yield the necessary capital investment levels. He calculated that to simply hold the line at present reserve levels, the petroleum industry, oil and gas, would have to spend approximately $150 billion between the time of his testimony and 1985, or twice the current outlay level.

[13,610]

95. Mr. Winger also examined Canadian imports, LNG, and coal gasification as possible alternatives, and said none was likely to satisfy more than half of a gas deficit of 40 billion cubic feet daily he forecast would exist in 1985, if present incentive levels were not improved. His recommendation was for annual outlays for oil and gas exploration to be increased by at least $2 billion immediately and increased steadily thereafter to a level of $13 billion annually by 1985.

[13,611]

96. Noting that 1¢/Mcf increase in the price of gas would create $90 million of revenue, and 5.6¢/bbl. increase in crude prices would make available another $150

[105] Exhibit 20.

million, and a 1¢/gal. increase in gasoline prices an additional $500 million after taxes, he foresaw generally higher prices, no matter where the burden for additional revenues should be placed. Thus, Witness Winger concluded that price increases must be expected in order to generate the anticipated additional $2 billion per year needed for oil and gas exploration.

97. Mr. Winger's testimony is persuasive as to the need for additional incentive. We need not venture into the effect of oil import policies and gasoline marketing practices on incentives for domestic capital commitment.

98. Of course there will be an impact on consumers, whatever we do. If we should prescribe prices too low to achieve the supply elicitation necessary to at least reverse the downward trend of the critical indices, that impact is likely to be extremely serious. On the other hand, setting a price needlessly high will gain the consumers no countervailing benefit. We heed the contentions made by such witnesses as Charles H. Frazier,[106] who testified for the Associated Gas Distributors. The import of his testimony is that we must be prudent, because there is a multiplier effect on the relative disadvantage of the consumers remote from the source of supply, and with this we agree. Mr. Frazier informed us of the effect of city gate gas prices on growth in distributor gas requirements (T. 1336) and his conclusion as to the impossibility of quantification reinforces our conclusions about the same difficulty in making projections about the response of supply to price.

99. Of particular interest to us was his testimony about electric rates which he said were currently subject to heavy upward pressure. He cited a variety of increases in costs,

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[106] Exhibit 17, T. 1330.

mentioning fuel cost increases stemming both from environmental considerations and what he termed massive increases in air conditioning sales, leading to a virtually universal summer peak.

100. He also discussed the trends in fuel oil prices, as to which gas still is competitive in many areas. He expects fuel oil prices to go up if gas prices do, but he said that in some areas "marked" gas price increases would shift the competitive advantage to No. 2 oil. With respect to coal, air pollution requirements and other environmental considerations, point to a conclusion that price increases in natural gas would probably have only a "temporary effect in restricting the boiler fuel market vis-a-vis coal."

101. We reject any "what-the-traffic-will-bear" approach, and adhere to the judicially required test of a price equal to but no higher than the level required to bring forth the necessary supply. Subject to the problems so extensively discussed herein, we agree with witness Frazier that we should avoid radical and sudden price shifts, and we think the settlement proposal enables us to achieve this objective.

102. Dr. Paul Davidson, Professor of Economics and Associate Director of the Bureau of Economic Research at Rutgers University, also offered economic opinion.[107] His testimony was quite theoretical, although he did bring in a number of practical or pragmatic considerations in qualifying his conclusions. Starting with the self-evident profundity that the influence of a change in price on supply depends on the price elasticity of supply, he said there has been no successful measurement of

[107] Exhibit 18, T. 1371, 2705.

this elasticity for the producing industry. He was mostly concerned with the "existing large economic rents in the industry" suggesting to him that supply is highly price inelastic. He also said that practical or political reasons may support the continual inclusion of what he called "price-determined" costs, even though he thought these could be

[13,613]

eliminated without affecting long-run supply offerings. It seems to us that Dr. Davidson at most was asking us to recognize his theory that the inclusion of "price-determined" costs permits the earning of economic rents. We have no objection to conceding the point, but find in his testimony no basis for pursuing his suggestion that we tie incentive price increases only to properties not under lease as of a certain date.

103. The prices and incentives we have prescribed will attract additional capital to the exploration and development in Southern Louisiana.[108] The amount cannot be quantified, but it is our judgment that the Southern Louisiana area will become a more attractive investment opportunity, and that additional supplies will result.

104. A portion of the funds required for further exploration and development in Southern Louisiana will be generated by the increased cash flow from the higher rates for flowing gas and from the operation of the contingent escalation provisions. Flowing gas resources represent an important source of capital to the industry. The additional resources from higher new gas rates and the escalations allowed will also contribute to the total of needed capital.

[108] See *Austral, supra.* at 435. See Exhibits 90 and 106 for estimates of the magnitude of the additional capital to be made available from the rates prescribed in the settlement.

105. Furthermore, available capital will not be diminished by requiring immediate cash refunds. We hope for a new stability to furnish the climate to reduce producer uncertainty and attract new entrants to the Southern Louisiana gas producing area. Increased competition in the exploration, development, and production of natural gas will yield beneficial results. We do recognize that the leasing policies

[13,614]

applicable to federal lands, particularly in the offshore areas, may have a tendency to stabilize or increase market concentration, due to the large bonuses required for successful bidding. Additionally, there are other external factors which bear directly upon the structure and degree of market entry to the natural gas-producing industry, ranging from alternative fuel costs and alternative investment opportunities to the overall government fiscal policy. For instance, there are numerous government agencies, other than this Commission, whose actions affect our Nation's energy policy. We therefore find that we are unable to quantify precisely the effects of our opinion and order herein upon the industry. We can however, based upon our informed judgment, find that there should be no increase in market concentration among the sellers of natural gas as a result of our orders herein. Moreover, we believe our findings herein, should attract new entrants to the industry. Thus, as the Fifth Circuit requested us to do,[109] we find our orders should have an overall tendency to be procompetitive.

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[109] *Austral, supra.* at p. 442.

106. We call particular attention to Section 11 of the settlement proposal:

> "Each producer individually represents to the Commission that the ceiling prices and other provisions contained herein provide incentive for the exploration for and development of gas reserves in the Southern Louisiana area. In view of the nature of producing and finding hydrocarbons, it is unrealistic to expect producing companies to guarantee that the ceiling prices and other provisions contained herein will elicit a specific supply of gas; however, it is believed that the ceiling prices and other provisions contained herein will make funds available to the producing industry and create a regulatory atmosphere which should provide an incentive for a substantial increase in exploratory and developmental activities and make a major contribution to bringing forth additional supplies of gas from the Southern Louisiana area to meet the demands of all consumers supplied by this area."

Costing

107. The parties' briefs in this case were submitted prior to the issuance of our Opinion No. 595, *Texas Gulf Coast*. Therein, we recognized that cost calculations cannot be mathematically precise, but contain arbitrary judgments as to allocation procedures and a wide margin of error in both data and methods utilized. We emphasized the supply-eliciting function, and saw that function as an aspect of economic cost. We applied our own expertise in identifying the gap between gas supply and demand, and we accepted a concept of allowing escalation in prices for gas delivered under pre-1961 and 1961-1968 contracts, in part because of the increased need we

saw for internally generated capital for additional gas exploration. The briefs before us do not reflect this latest expression of our unanimous

[13,616]

views on these matters, although some of the parties in both cases have called attention to the similarity between the rate design and incentive features of our decision there, and that in the settlement proposal in this case, a matter already discussed.

108. A full cost of service case was made herein. The record before us is superior in that it is more current, but it tends to reinforce what was said in *Texas Gulf Coast* about the lack of precision inherent in the process.

109. As in *Texas Gulf Coast*, in *Permian*, and in our previous efforts in this docket, cost components are expressed in the elements which are more or less standard cost-accounting divisions. Nationwide data on these various elements are collected and analyzed.

110. The cost evidence before us was submitted by the FPC Staff, by the United Distribution Companies, the Producer Group, the Municipal Distributor Group, and the Pipeline Purchaser Group. The Pipeline Purchaser Group presented a study of costs of pipeline transportation of liquids produced with natural gas, and MDG confined its presentation to a flowing gas cost study. With respect to new gas-well gas costs, the record contains evidence from four principal witnesses: Dr. Sherwin for the producers, Messrs. Loring and Engel for the FPC Staff, and Mr. Ogden for UDC. Staff and UDC presented their costing results in the form of a single point estimate (excluding production tax and gathering allowance and at 15.025 psia pressure base), as follows:

Loring (Staff)	21.62¢
Engel (Staff)	22.10¢
Ogden (UDC)	24.77¢

111. Dr. Sherwin expressed his conclusions alternatively with different stated assumptions as to rate of return,

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depletion period, time lag, and royalty rate (at 14.73 psia and excluding production tax) as ranging from 27.01¢ at the low end of their cost estimates and at 13% rate of return, 18-year depletion, and 15.5% royalty, to 38.02¢ at 16% rate of return, 20-year depletion, and 16.5% royalty at the high end of their cost estimates.[110]

112. In its brief, staff recommended a rate of 25 cents per Mcf for new gas; the producers recommended acceptance of the settlement proposal, which calls for 26 cents initially, but with escalations. Staff, however, also supported the settlement proposal. Mobil, relying upon the Sherwin and other producer witnesses, as augmented by the testimony of its witness, David L. Knapp, made rate design recommendations which included a 30 cents price for new gas. The Municipal Distributor Group, through its witness, Alexander E. Wiskup, opposed the settlement proposal, and in their brief, contended that the ceiling for new gas-well gas commitments should be no higher than 24 cents inclusive of production tax onshore and 22.5 cents per Mcf offshore. As they explained it, their principal data reliance was on the Staff's presentation, and generally on Staff's selection of methodology.

113. The New York Public Service Commission brief reflects a superior comprehension of the methodology and

[110] T. 6092-4.

an ability to select from the Staff's data those alternatives which support its position on rate design. New York agrees that the cost of new gas should be at the 26 cents level, as in the settlement proposal, but disagrees as to the rate design, the refunds, and the incentive escalations.

114. New York's discussion of the evidence illustrates the point we made in *Texas Gulf Coast.* The assumptions and selections which are possible, using the same data base, are

[13,618]

almost unlimited, and the factors are so interrelated that errors tend to cumulate. It is not necessary for us to make choices and selections on all these sources of different possible results from the same or similar data, for the reasons set forth in *Texas Gulf Coast.* The judgmental process is bound to suffer if the goal is to settle upon a mechanical process of pricing gas.[111] The producers ask us to make findings that "the range of estimated current costs of gas derived from data available through 1969 is up to 38.02 cents per Mcf at 14.73 psia, exclusive of production tax." They request this finding, notwithstanding their recommendation that we approve the settlement proposal, and thus obviously to illustrate what an elusive concept "cost" is in these terms.

115. MDG, on the other hand, would have us make findings that the current nationwide cost of finding and producing gas was no more than 19.39¢ per Mcf (at 15.025 psia) exclusive of production tax.[112] This recommendation would be based on staff data, and staff com-

[111] *Cf., Colorado Interstate Gas Co.* v. *FPC,* 324 U.S. 581 (1945) at 612.

[112] 19.39 cents could be compared to the costs described in para. 110.

putations, with the exception of staff's use of a productivity figure of 654 Mcf per foot drilled which is based on 1965-1969 figures averaged, whereas MDG would select instead the average of findings per foot for the period 1964-1968, giving the higher figure of 723 Mcf per foot drilled.

116. It is vigorously argued by the producers and others that the use of any five-year period is not justified, and they cite the fact that if the 1966-1970 figures were used the productivity would be about 600 Mcf per foot drilled, which happens, we note, to be very close to the figure which would result if the figures were averaged for the twenty-five year period from 1946-1970.

[13,619]

117. As we pointed out in *Texas Gulf Coast*, the key elements in the equation for deriving the costs of new gas are productivity, and drilling cost per foot. A great deal of evidence was offered on the latter point, centering around whether Joint Association Survey data, or Census data, or a trending of one or the other should be used. Additionally, as producers discuss in their reply brief, considerable variation can be found by making different assumptions as to the use of the data on average depth of wells, and average number of wells at different depths. Wells up to 2500 feet have a cost of $11.56 per foot, while at depths deeper than 12,500 the cost goes to $50.47 per foot.

118. New York Public Service Commission suggests that the correct figure is $21.93 per foot,[113] while producer witness Gody estimated $25.48 per foot.[114]

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[113] Initial Brief, p. 8, using adjusted 1967 Census Data; the latter is not in this record.

[114] Exhibit 58.

119. For the purposes of conforming this opinion to the methodology of *Permian*, we have determined to express the general range within which rational choices can be made from reliable and credible data in the matter of productivity and drilling costs, rate of return, depletion period and lag.

120. With respect to drilling costs per foot, we find a pronounced trend toward deeper drilling which augments the general price inflation, and we believe therefore that drilling costs per foot should range upward from about $25.00 per foot.

121. Productivity is computed by relating reported reserve additions of nonassociated gas to productive gas well footage drilled. We find that the starting point for our calculations should be the longest series of data available, that is beginning in 1946. Generally speaking, therefore, we think productivity estimates should cluster around 600 Mcf per foot drilled.

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As we noted when discussion Dr. Khazzoom's testimony, the imponderable here is whether the "dwindling resource" effect, or the improved technology will dominate for the future. If the former, productivity over time will decline; if the latter, it may increase.

122. As we indicated in our *Texas Gulf Coast* opinion,[115] "The methodology for determining the *rate* of that return is comparatively straightforward, but the same cannot be said about the task of imputing a capital structure, given the basic differences between the large integrated companies and the independents engaged strictly in oil or gas exploration and development." De-

[115] *Texas Gulf Coast, supra.* at para. 66, pp. 24-25 (mimeo).

terminations, requiring judgment, must likewise be made as to the appropriate period for the depletion standard and time lag between the outlay of exploratory costs and their recovery.

[13,621]

123. Witness Ezra Solomon presented evidence in these proceedings to support a rate of return of 15.3—16.2 percent.[116] Based on several factors, particularly alternative investment opportunities and competition for capital, the staff supported a 13 percent rate of return.[117] Data from the All Areas Questionnaire indicated the large producers earned 13.5 percent on gas alone in 1962.[118]

124. We find that the zone of reasonableness of rate of return is within the range of 13 percent to 16 percent. We further find that a rate of return of approximately 15 percent, supported by the evidence in this case, is just and reasonable.[119]

125. With respect to the depletion period, questionnaire data indicate that the trend may be downward from the 20-year period we used in *Permian* and other earlier cases. Certainly, that would be the expected result, given the gas supply situation and the increased cost of money. Similarly, the lag period, the significance of which was discussed in the dissent in *Southern Lou-*

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[116] Witness Solomon at T. 1693-94, Sample of nonintegrated producers earned 15.6 percent, compared to 12.2 percent for integrated companies during 1964-1968. Estimated return for exploration and production operation of 3-4 percent higher than for overall petroleum operations.

[117] Witness McGrath at T. 1152-1173, Exhs. 12 and 13, T. 6798-99.

[118] Witness McGrath at T. 6798-99.

[119] Accord, *Texas Gulf Coast*, Opinion No. 595 para. 70 (mimeo).

isiana, may be shortening. In these cases, we prefer the lower end of the range of choices, but we point out that the range itself is comparatively narrow in this record.

126. Under the mandate of *Austral*, we must be as specific as possible about the cost components, within the zone of reasonableness. In order to tie our observations above together, we will use the testimony of Staff Witness Engel, who

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stated that the recommendations he made based on his cost findings for new gas were consistent with the settlement, and that the latter was reasonable and supported by the evidence.[120] We also note that his calculations were generally the basis for discussion of their recommended adjustments by the New York Public Service Commission and MDG, and that they were sharply criticized by Mobil in its brief.

127. Witness Engel estimated current costs and future costs, as follows:

[120] Witness Louis J. Engel is a Supervisory General Engineer in the Bureau of Natural Gas.

		Current	Future
1.	Successful Well Costs	3.91	4.29
2.	Lease Acquisition Costs	1.37	1.37
3.	Other Production Facilities	0.88	0.88
4.	Subtotal	6.16	6.54
5.	Dry Hole Costs	2.12	2.67
6.	Other Exploration Costs	1.81	1.81
7.	Subtotal	3.93	4.48
8.	Production Operating Expense	3.10	3.10
9.	Return on Investment	8.41	8.93
10.	Return on Working Capital	0.44	0.45
11.	Net Liquid Credit	(3.89)	(3.89)
12.	Regulatory Expense	0.17	0.17
13.	Subtotal	18.32	19.78
14.	Royalty at 15%	3.23	3.49
15.	Subtotal at 14.65 psia	21.55	23.27
16.	Subtotal at 15.025 psia	22.10	23.87
17.	Area Gathering	0.51	0.51
18.	Production Tax	2.30	2.30
19.	Total	24.91	26.68

128. *Successful well costs.* Mr. Engel's figure would be adjusted upward slightly (one-half cent range) by using a lower productivity figure than he used, as we believe should be done.[121]

129. *Lease Acquisition Costs.* Assuming only the relationship between this item and the item for successful well costs, the calculation of a future gas cost would be

[121] Witness Engel used $25.58 for drilling costs and a productivity figure of 654 Mcf to yield a cost of 3.91 cents per Mcf. If 600 Mcf was used the new cost would be 4.26 cents perMcf.

marginally higher. However, expected higher costs could well be added to a predictive model, and we find Staff's estimate to be low on that account.

130. *Other Production Facilities.* The Staff figure is at the lower level of a comparatively narrow range, again dependent on the generally assumed relationship to the calculation of successful well costs.

131. *Recompletions and Deeper Drilling.* We note at this point the fact that the producers adduced evidence [122] on a separate cost item, which other witnesses did not separately identify. We make no finding concerning it, since we are concerned mainly with explaining the general limitations on the range or zone of reasonableness which the methodology allows us.

132. *Dry Hole Costs.* We have not discussed this separately, although in a general way the same considerations apply as with successful well costs, namely, the importance of deriving

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a figure for the cost of drilling, and determining a factor of the footage of dry holes to successful well footage, allocated to gas in each case. The range is narrow, probably not over 0.3¢.

133. *Other Exploration Costs.* Geological, geophysical, and exploration overhead are included herein, and relatively little dispute attends the item. Cost inflation would account for an allowance marginally higher, which has not been allowed for in the Staff's estimate for the future. The range probably does not exceed 0.5¢.

134. *Adjustment for Exploration in Excess of Production.* This adjustment was designed, in prior cases, to

[122] T. 6108.

continue to provide findings in excess of production. At the present time, findings of non-associated gas are substantially less than production (see *supra.*) As we indicated in *Texas Gulf Coast*, our concept of economic costing includes the costs of eliciting the required exploratory and drilling effort. Thus, there is no reason to consider special allowance categories.

135. *Production Operating Expense.* Virtually no dispute attends this item of cost.

136. *Return.* We have separately discussed this item.

137. *Net Liquid Credit.* The range of dispute in this area is too narrow to warrant discussion.

138. *Regulatory Expense.* This was stipulated.[123]

139. *Royalty.* The figure is derivative, in the sense that the rate must first be determined. We find, generally, that

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royalty rates are going up,[124] which would account for a greater allowance in this item, currently or in the future.

140. *Production Tax.* There is no dispute as to the amount. However, as we accept a settlement which fixes the same price both offshore, where the tax does not apply, and onshore, where it does, we are adding the equivalent of an incentive, the adjustment for which in our costing matrix must be accounted for generally in

[123] T. 706.

[124] In Opinion 546 we accepted a 14 percent royalty figure (40 FPC at 588). However, recent respondent questionnaire data indicate nationwide royalties of 15.2 percent (T. 6171) to 16.5 percent (T. 6152). We would also note the fixed royalty rate of 16-2/3 percent on federal lands, including the prolific offshore areas.

the special problems of operating offshore. We achieved this result partially in Opinion No. 546, where we allowed a difference of 1.5¢, rather than the full tax. There is abundant evidence in this record indicating higher costs and risk factors in the offshore area.[125] Costs tend to increase as drilling goes into deeper waters.[126] Additional safety and related factors entail greater costs.[127] Thus, there have been increased difficulties in finding additional gas supplies.

141. *Area Gathering.* In Opinion No. 546, we found that gas is customarily delivered to the pipeline at a central point in the field or at a tailgate of a plant. The allowance was .51 cent per Mcf, to compensate fully for gathering costs.[128] We herein find that a .51 cent allowance is reasonable for gas delivered at a central point in the field, the tailgate of a plant, or a point on the pipeline.[129]

[13,626]

142. *Delivery Allowance.* We also find that for offshore gas delivered by a producer onshore, the ceiling price shall be the applicable price plus one cent per Mcf, in accordance with the settlement proposal.[130] We herein find the

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[125] E.g., Witness Pittman at T. 1006-28.

[126] *Ibid.* Also higher lease costs (T. 6772 and Exh. 79), higher royalty (Exhibit 80), offshore platforms (T. 1017-18) and hurricane losses (Exh. 5, p. 11.)

[127] T. 7417-8. Also, Section 11 of Water Quality Improvement Act of 1970, 84 *Stat.* 91.

[128] Accord, *Hugoton-Anadarko*, Opinion No. 586, *supra*, note 35.

[129] Stipulated to by parties, T. 2038-39.

[130] In Opinion No. 546-A, we allowed producers to collect the onshore rate where they transported or paid for transporting gas from the federal domain to compensate for these gathering expenses.

one cent allowance in the settlement proposal to be just and reasonable.

143. *Non-Cost Items.* We have set forth a variable range of costs in the "matrix of cost components." We have not deemed it necessary to quantify "non-cost" elements,[131] since the just and reasonable rate for new gas does not exceed reasonable costs.

144. A rate of 26 cents per Mcf was proposed in the settlement, to which we are under a legal duty to give careful consideration (*supra*, at n. 33 and discussion beginning paragraph 19). Based upon our analysis of the evidence underlying the several cost components in this proceeding, we herein find a variable range of reasonable costs of 4-5 cents per Mcf, among which one could rationally select a new gas cost. The rate for new gas, as contained in the settlement proposal, is within the zone of reasonableness of costs and in our judgment is at the appropriate level which will elicit exploratory and developmental effort in Southern Louisiana. Our rate for new gas in Southern Louisiana is consistent with nationwide cost of new gas. We are mindful of the importance of Southern Louisiana as a source of new gas supplies both in terms of future production and potential for discovery. We have also considered the impact of a rate of 26 cents per

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Mcf in relation to market conditions in Southern Louisiana. The weighted average for intrastate contracts in Southern Louisiana was 22.98 cents per Mcf in the first half of 1970 and 19.34 cents per Mcf in 1969. The intrastate contracts during the first half of 1970 ranged from

[131] See *Texas Gulf Coast, supra.*, at paragraph 92, *et seq.*

20.5 cents per Mcf to 30.0 cents per Mcf.[132] We therefore find that a rate of 26 cents per Mcf would be at a competitive price level with the market price for intrastate gas.

[13,628]

145. Accordingly, we find 26 cents per Mcf to be the just and reasonable rate subject to the automatic escalation provided herein, for gas dedicated under contracts dated October 1, 1968, and thereafter, for both the onshore and offshore areas in Southern Louisiana. We therefore accept the ceiling prices prescribed in Section 3.1(b) of the settlement proposal.

Date of Division

146. We herein establish October 1, 1968, as the date of division between earlier and later vintages of gas. This is done to avoid multiplicity of division dates throughout the various areas.[133] Our finding is consistent with the settlement proposal.

Flowing Gas

147. The foregoing discussion relates to new gas costs. The proposal in the settlement offer of UDC that gas flowing under contracts earlier than October 1, 1968, be entitled to a ceiling rate of 22.375¢ per Mcf is vigorously attacked, as we have heretofore noted, by Mobil and

[132] Survey of contract prices for contracts entered into by the large producers named in letter dated September 9, 1970, from Investigating Officer to Secretary, FPC. Also, see generally, Docket No. R-389-A.

[133] Opinion No. 546, 40 FPC at 555. *Texas Gulf Coast*, Opinion No. 595, prescribes October 1, 1968. Also see the order instituting AR69-1, 41 FPC 380, n. 5. But for the settlement proposal, Opinion No. 586 would have established October 1, 1968.

Amoco as being discriminatory and inequitable. Producers who entered into company-wide settlements at the guideline prices will in fact realize less from this new rate design than those who did not. Parties who enter into settlements or those who refuse to do so, always run the risk that the ultimate Commission determination may be higher or lower than the settlement levels.

148. We have before us four flowing gas cost studies, all using mainly 1969 data. The FPC Staff, UDC, the Producers, and the Municipal Distributor Group approached the same problem in different ways, all using the data submitted by the respondent companies, composited by Staff. Mr. Murr

[13,629]

of the FPC Staff (Exhibit 77), Mr. Auten for the Producers (Exhibit 66), Mr. Larson for UDC (Exhibits 51, 52), and Mr. Wiskup for MDG (Exhibits 81-83) all presented testimony. Only gas-well costs were estimated, only lower 48 cost components for exploration and development were applied, and joint production costs were allocated by the relative cost method.

149. Revenues from flowing gas (gas delivered under contracts dated prior to October 1, 1968) are an important source of funds for new investments by the producers. We recognized in Opinion No. 546 that "revenues from sales of gas under contracts dated prior to 1961 continue to constitute a large portion of the total revenues derived by producers from gas sales in Southern Louisiana." The funds to support exploration for and development of new gas supplies come for all gas sales. Traditional costing methods of flowing gas provide for the replacement, at historic cost levels, of gas produced in the current year, which does not provide any support

for the presently needed exploratory effort to meet future demand.

150. At the outset of this Opinion, we discussed the problems involved in following the Fifth Circuit's mandate, and concluded that we are examining *de novo* the matters discussed in Opinion Nos. 546 and 546-A. Therefore, the argument of MDG that by concluding to accept the settlement proposal as dispositive on rate design matters, we are "increasing" the rates for flowing gas over those earlier set is subject to the same infirmity which applies with respect to the refunds. To argue that there has been no increase in the unit cost of flowing gas since the AR61-2 test year of 1960, really begs the question.

151. So the significant argument is whether flowing gas realizations should bear a part of the responsibility for assuring a cash flow to meet the needs for a heightened exploration and production effort. We believe they should.[134]

[13,630]

152. As with the new gas costing, Witness Engel for the Staff of the Commission presented an analysis of flowing gas costs, together with a discussion of the various problems presented. The problems of allocating joint costs are the most severe, but other questions presented by the witnesses recommending adjustments included: (1) whether costs should be spread over cycling lease volumes; (2) whether the Hugoton-Anadarko area should be removed from the nationwide gas leg in allocating Southern Louisiana production costs; (3) whether shut-in leases should be removed from the oil and gas legs; (4) whether shut-in wells should be removed from the oil and gas legs; (5) whether the direct assignment of

[134] *Cf.*, 41 FPC at 365 and 34 FPC at 187.

exploration and development costs should be accepted; (6) whether exploration and development expenses should be "normalized"; (7) whether the test-year production volumes should be "normalized"; (8) what the proper economic factor should be for use of the modified Btu method of allocating exploration and development costs; and (9) whether net investment rather than gross investment should be used in developing the ratios for allocating return.

153. Staff witness Engel departed from prior methodology only with respect to the determination of exploration and development expenses by reference to the directly assigned costs as reported by the respondents to the cost questionnaire; Staff counsel recommends that we make the same change, and MDG and New York Public Service Commission argue that we should not. Although we have some doubts about the evidentiary base furnished by the questionnaires, we also have doubts about the modified Btu method followed in past cases, with the inherent variables of a judgmental factor. In Opinion No. 546, this factor was 3.5, while staff witness Raymond D. Murr (Supervising General Engineer) and Producer witness Donald W. Auten recommend this be 2.5. We accept staff's recommendation to use the new methodology. The difference in result of about one cent per Mcf is more than accounted for by the range of estimates presented to us in the other choices implicit in the flowing-gas costing methodology.

[13,631]

154. Basically adhering to past choices on the other points of dispute, the Staff recommendation for flowing gas costs is, as follows:

1.	Cash Expense	1.81
2.	DD&A	4.00
3.	Return at 13 percent	5.46
4.	Total Production Cost	11.27
5.	E&D Expense	5.47
6.	E&D Return at 13 percent	1.10
7.	Total E&D	6.57
8.	Total at 14.73 psia	17.84
9.	Total at 15.025 psia	18.20
10.	Gathering Cost	0.51
11.	Regulatory Expense	0.17
12.	Production Tax	2.30
13.	Total	21.18¢ per Mcf

155. By recommending a flowing gas price higher than that arrived at in Opinion No. 546, using the same methodology (except for the substitution of the direct assignment method for calculating exploration and development costs), and then further recommending acceptance of the settlement at a still higher level, again without change in methodology or adjustment of any of the computations, Staff was candidly and correctly making the flowing gas cost bear a part of the responsibility for further exploration—in other words, it was looking to the total rate design.

156. We have already mentioned and answered the two principal objections to this. One, based upon equitable considerations, was put forward by Mobil particularly. The other, arguing that to look to flowing gas revenues to enhance the exploration effort is to countenance a possible windfall to producers, who would not (by this part of our order) be required to commit the increased revenues to development in the area.

We find it unlikely that producers, already involved in the Southern Louisiana area, will decide not to expand their exploratory and drilling effort. Moreover, the incentives we establish herein, for flowing gas rates, are designed to elicit an industry response of dedications of new gas reserves to the jurisdictional market. We find it neither feasible nor in the public interest to attempt to establish incentive rates for each individal producer in Southern Louisiana.

157. Based on the evidence in this proceeding and for the reasons set forth in the preceding paragraphs, we find that the rate of 22.375 cents per Mcf proposed in the settlement is the just and reasonable rate subject to the automatic and contingent escalations as provided herein to be applied to all future deliveries of gas under contracts dated prior to October 1, 1968. Gas from the offshore area (as defined in Appendix A) shall be at a rate of one cent per Mcf less than the above onshore rate.

158. The prices and incentives we prescribe, including specifically the price for flowing gas, should help to attract capital to the exploration and development in Southern Louisiana and provide reasonable incentives to find gas and dedicate that gas to the interstate market.

Contingent Adjustment of Flowing Gas Prices

159. Besides the refund credit of one cent per Mcf for new gas reserves committed to jurisdictional sale from Southern Louisiana for a five-year period, as described in Section 8.2.2 of the settlement proposal, flowing gas prices will be entitled to an additional allowance by the commitment of new gas reserves to jurisdictional sales prior to October 1, 1977, in the Southern Louisiana area.

Such entitlement shall first be by way of satisfaction of outstanding refund obligations, after which ceiling prices on flowing gas contracts shall be increased as follows:

[13,633]

(a) .5 cents per Mcf when 7.5 trillion cubic feet of new gas reserves have been committed to jurisdictional sales.

(b) An additional .5 cents per Mcf when a total of 11.25 trillion cubic feet of new gas reserves have been committed to jurisdictional sales, and

(c) An additional .5 cents per Mcf when a total of 15 trillion cubic feet of new gas reserves have been committed to jurisdictional sales.

160. If, after a contingent escalation has been made effective hereunder and increased rates based thereon could have been collected, the volume of new gas reserves on which escalation is predicated is found to be less than required, the escalation will be rescinded and any rate increases made effective pursuant to such ceiling price escalation shall, thirty days from the date of such rescission, be reduced to the levels permitted if such contingent escalation, had not become effective. Such reduction shall not be required, however, if, by the expiration of the thirty-day period, the volume of new gas reserves is restored to the level, which would cause the contingent escalation to become effective.

161. *Effective Dates.* The settlement proposal provides, and we concur, that these rates, for contracts dated prior to October 1, 1968, and those dated on and after that date, will take effect only after our order herein, and subject to contract limitations. The settlement reasonably specified that rate increases after this order shall not be

effective until 65 days from its date, and only if such change in rate is filed within 20 days of the date of the order; failure to act within the 20-day period shall have the effect of postponing effective dates until 90 days from the date of filing. The purpose of this is to permit tracking increases to be filed by the pipelines, and we approve the provision.

[13,634]

162. *Quality Adjustments.* We approve the provisions of the proposal on quality adjustments downward on a proportionate basis from 1,000 Btu per cubic foot, and upward from a level of 1,050 Btu on the same basis, and for the central delivery point standard. We also approve the provision that nonassociated gas paid for but not taken may be made up in the manner provided by the contract within five years from the end of the contract year in which the obligation to take occurred, provided the purchaser takes the gas within the term of the contract.

163. *Tax Adjustments.* It is not inconsistent with the evidence or prior controlling precedent that ceiling prices be adjusted upward or downward to reflect seven-eighths of any change in federal or state production as consistent with the settlement proposal, severance, gathering, or similar taxes effective after October 1, 1970, and we will so order.

Offshore Gas Delivered Onshore

164. If a producer delivers gas to a point inland of the Chapman Line from an offshore platform seaward from it, the ceiling price for the gas shall be the offshore price plus one cent per Mcf.

165. *Transportation.* We recognize certain difficulties in approving the provision of the settlement proposal respecting transportation of liquids and liquefiable hydro-

carbons by pipeline for the account of the producer, which is the subject of rulemaking proceedings in Docket R-338. The Pipeline Producer Group presented testimony on this subject which amply supports the agreed level in the settlement proposal, as minimum rates. We therefore approve this provision, and terminate Docket R-338 insofar as it applies to sales from the Southern Louisiana area. A special order will be issued in that docket to such effect.

[13,635]

166. *Excluded Proceedings.* The settlement proposal provides that it shall not dispose of any of the issues in the *Rayne Field* (Docket Nos. G-12446, *et al.*) or *Bastian Bay Field* (Docket Nos. CI66-910, *et al.*) proceedings. We agree. The *Rayne Field* decision is now pending review by the Court of Appeals for the District of Columbia Circuit and the *Bastian Bay* proceeding is before the Commission. Application of this decision to those proceedings would be inappropriate in these circumstances.

167. *Casinghead Gas.* In *Texas Gulf Coast*, we eliminated the distinction between casinghead gas and gas-well gas so far as new dedications were concerned, for pricing purposes. Staff Witness Engel made a recommendation similar to that herein, saying that "to impose a lower price on casinghead gas would be to invite the divergence of such gas to the intrastate market." We believe our determination in *Texas Gulf Coast*, and the evidence in support thereof herein, outweighs the counter-arguments adduced by the Municipal Distributor Group and the New York Public Service Commission in their briefs.

168. *Moratoria.* We also prescribe a moratorium on rate filings for prices above the applicable area rates of October 1, 1976, for contracts dated prior to October 1,

1968, and October 1, 1977, for contracts dated on or after October 1, 1968.

Refunds

169. We have suspended the making of all refunds pending the application of the other terms of this order. In making these orders on refunds, we recognize we have broad administrative discretion under Section 16 of the Natural Gas Act.[135]

The Fifth Circuit recognized the Commission's power to review and revise refunds in these proceedings, indicating ". . . it may be that the refunds are too burdensome in light of new evidence to be in the public interest." [136] Moreover, the Natural Gas Act makes it explicitly clear that the Commission *may* order refunds.[137]

170. We herein adopt those provisions of the settlement proposal which prescribe the following refund provisions for deliveries made:

(a) Prior to January 1, 1965, amounts collected above the just and reasonable rates of 20.625 cents per Mcf (onshore)[138] and 19.625 cents per Mcf (offshore).

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[135] *F.P.C.* v. *Tennessee Gas Transmission Co.*, 371 U.S. 145 (1962), particularly 154-155, and *Mesa Petroleum Co.* v. *F.P.C.*, No. 28229, Fifth Circuit, April 6, 1971. Also, under Section 309 of the Federal Power Act, *Niagara Mohawk Power Corp.* v. *F.P.C.*, 379 F.2d 153 (1967).

[136] *Austral, supra.*, petition for rehearing, pp. 2-3 (mimeo).

[137] Natural Gas Act, 15 U.S.C. § 717(c).

[138] Settlement level in accord with *Union Texas* cases, 32 FPC 254 (1964).

(b) From January 1, 1965, to September 30, 1968, amounts collected above the just and reasonable rates of 21.25 cents per Mcf (onshore)[139] and 20.25 cents per Mcf (offshore).

(c) From October 1, 1968, to January 1, 1971, refunds shall be calculated by applying 30.5 percent of the difference between revenues for this period based on rates in effect prior to October 1, 1970, and the revenue which would have resulted for this period through application of rates established in Opinion Nos. 546 and 546-A, as modified by Opinion No. 567.

(d) After January 1, 1971, refunds shall be made for amounts collected in excess of the ceiling prices established herein.[140]

[13,638]

171. Opinion No. 546 did not afford an adequate return and it understated the requirements for exploration and development. In the light of these inadequacies, we

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[139] Same rate established in *Statement of General Policy*, 61-1, 26 FPC 661 (1967).

[140] We estimate the total refund obligation to be approximately $150 million. See Witness Clay at Exh. 91. (See also Ordering para. B(a), p. 77).

Note: The rates we established in Opinion No. 546 were as follows: 18.5 cents per Mcf for all onshore gas including all casinghead, contracted to before January 1, 1961 (17.0 cents per Mcf for offshore gas); 19.5 cents per Mcf for onshore gas under contracts dated on or after January 1, 1961, but prior to October 1, 1968 (18.0 cents per Mcf for offshore gas), and 20.0 cents per Mcf for onshore gas under contracts dated on or after October 1, 1968 (18.5 cents per Mcf for offshore gas.)

find that the rates of 20.625 cents and 21.25 cents as a base for refunds during the designated periods are reasonable and in the public interest. The calculation of refunds for the period October 1, 1968, to January 1, 1971 as a percentage of excess collections over Opinion No. 546 rates rather than 100% of a newly established rate for that period provides for an approximate equivalent amount of refunds and is hereby found to be in the public interest.[141] This formula for determining the refund obligations during this period is hereby found to be just and reasonable.

172. We also accept the settlement proposal's provision which allows for discharge of the above refund obligations through dedication of gas to interstate commerce. We therefore find a refund credit, of one cent for each Mcf of new gas reserves committed to jurisdictional sale from the area, to be in the public interest.[142] We find such an incentive will be of net benefit to the consumer, by obtaining additional gas supplies.

[13,639]

Minimum Rates

173. In Opinion No. 546, no minimum rate was established and we establish none herein.

Special Exemption Procedure

174. The special exemption procedures previously established in other areas will also be open to all those

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[141] *E.g., United Gas Co.* v. *Mobile Gas Corp.*, 350 U.S. 332 (1956) at 341. Cf., *Niagara Mohawk Power Corp.* v. *F.P.C.*, 379 F.2d 153 (CADC, 1967).

[142] See *Texas Gulf Coast*, Opinion No. 595, May 6, 1971.

making jurisdictional sales of gas in the Southern Louisiana area.

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FURTHER FINDINGS AND ORDER

175. Upon consideration of the entire record in this proceeding, which includes public notice, public hearing with opportunity for the submission of oral and documentary evidence, for cross-examination and for the submission of rebuttal evidence, *the Commission further finds*:

(1) Each of the respondents [143] listed in Appendix B to this decision is, and at the time of all past sales with which we are here concerned was, a natural gas company within the meaning of the Natural Gas Act and is engaged in the sale of natural gas in interstate commerce for resale for ultimate public consumption, subject to the jurisdiction of this Commission.

(2) Past, present and proposed sales of natural gas to which the order herein applies are subject to the jurisdiction of this Commission.

(3) Rates for all sales of natural gas, subject to the jurisdiction of the Commission, by the producers in the Southern Louisiana area that are above the applicable area rates prescribed herein, have not been shown to be just and reasonable or otherwise lawful under the provisions of the Natural Gas Act and should be disallowed, and refunds should be required as hereafter provided.

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[143] Where the term "respondents" is used in the finding and ordering paragraphs hereinafter set forth, it is to be regarded as referring to all named respondents in the Commission orders issued in this case, and to all parties on whose behalf such named respondents have filed FPC gas rate schedules for sales of gas produced in the Southern Louisiana area.

(4) The just and reasonable rates for sales of natural gas to which this order applies are the applicable area rates set forth in ordering paragraph (A) below.

[13,641]

(5) Rates in excess of the applicable just and reasonable rates determined herein are unjust and unreasonable.

(6) It is necessary and appropriate to carry out the provisions of the Natural Gas Act that the Commission adopt the orders and regulations prescribed herein.

176. The Commission, acting pursuant to Sections 4, 5, and 16 of the Natural Gas Act (52 Stat. 822, as amended, 823, 830; 15 U.S.C. 717c, 717d, 717o) and Sections 553, 556 and 557 of Title 5 of the United States Code (the Administrative Procedure Act, 60 Stat. 238, 239, 241, 242, as codified September 6, 1966 by 80 Stat. 383, 384, 386, 387) *orders*:

(A) Part 154 of the Commission's Regulations under the Natural Gas Act, Subchapter E, Chapter I, Title 18 of the Code of Federal Regulations (18 CFR 154) is amended by deleting section 154.105 in its entirety, and substituting a new section 154.105, reading as follows:

Part 154—Rate Schedules and Tariffs

* * * *

§ 154.105 Area rates—Southern Louisiana area.

(a) From and after August 1, 1971, the effective date of Opinion No. 598 in Docket Nos. AR69-2 and AR69-1, *et al.*, —— FPC ——, and prior to October 1, 1977, for contracts dated on or after October 1, 1968, and prior to October 1, 1976, for contracts dated prior to October 1, 1968, no rate or charge

made, demanded or received under a rate schedule filed pursuant to this Part for gas produced in the Southern Louisiana area shall exceed the applicable area rate prescribed by this section except in compliance with a specific order of the Commission.

[13,642]

(b) Applicable area rate means the base area rate established by paragraph (c) adjusted to the extent required by paragraphs (d), (e), (g), (h) and (i).

(c) *The Base Area Rates.* The following base area rates per Mcf (at 15.025 psia) are hereby established subject to the adjustments provided in paragraphs (d), (e), (g), (h), and (i),

(1) Gas sold under contracts dated prior to October 1, 1968:

(i) 22.375 cents for gas subject to Louisiana production tax.

(ii) 21.375 cents for gas not subject to Louisiana production tax.

(2) Gas sold under contracts dated on or after October 1, 1968 and newly discovered reservoirs discovered on or after October 1, 1968:

26 cents prior to October 1, 1974.

27 cents on and after October 1, 1974.

(3) For gas sold under contracts dated prior to October 1, 1968, the base area rates in paragraph (c) (1) shall be adjusted upward .5 cents on October 1, 1973.

(4) The applicable base area rate prescribed herein shall be adjusted downward by .51 cents

for deliveries made closer to the wellhead than a central point in the field, the tailgate of a natural gas processing plant, an off-shore platform to the buyer's line, or a point on the buyer's pipeline.

[13,643]

(d) *Contingent Escalations of Area Rates.* From such time prior to October 1, 1977, as the Commission determines that independent producers shall have dedicated for sale to interstate pipelines new gas reserves from the Southern Louisiana area, in addition to gas already dedicated as of October 1, 1970 and also in addition to any dedications used to reduce refund obligations, in the amounts hereafter specified, the base area rates established in paragraph (c) for gas sold under contracts prior to October 1, 1968, shall be increased as follows:

Total New Gas Reserves Dedicated	Base Area Rate Increase
7.5 trillion cubic feet	.5 cents per Mcf.
11.25 trillion cubic feet	additional .5 cents per Mcf
15 trillion cubic feet	additional .5 cents per Mcf

New gas reserves shall mean the estimated original recoverable reserves in place, less any prior production therefrom, which are either initially committed to a jurisdictional sale under a contract dated on or after October 1, 1970, or which are new discoveries (as defined in Section 2.56(f)(2) of the Commission's Rules of Practice and Procedure) made on or after October 1, 1970.

(e) *Quality Standards and Adjustments to the Base Area Rates.*

(1) The base area rates fixed in paragraph (c) shall be adjusted for any deviations from the following standards.

(i) *Btu Adjustment* — The maximum standard will be 1050 Btu's per cubic foot of gas, saturated with water vapor, at 60° F. and 14.73 psia, and the minimum standard will be 1000 Btu's per cubic foot of gas, saturated with water vapor, at 60° F. and 14.73 psia. For gas with more than 1050 Btu's per cubic foot, upward adjustments shall be made on a proportional basis from a base of 1050 Btu's.

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For gas with less than 1000 Btu's per cubic foot, downward adjustments shall be made on a proportional basis from a base of 1000 Btu's.

(ii) *Delivery Point*—The gas shall be delivered at a central point. A central point includes a central point in the field, the tailgate of a natural gas processing plant, an off-shore platform to the buyer's line, and a point on the buyer's pipeline.

(2) When a purchaser buys gas which deviates from the quality standards established in subparagraph (1) above, the base area rate fixed in paragraph (c) shall be adjusted for any deviations from such standards as follows:

(i) The applicable base area rate shall be adjusted downward or upward by the

amount of any applicable Btu adjustment as set forth in paragraph (1) (i) above.

(f) From and after August 1, 1971, non-associated gas which has been paid for but not taken may be taken in the manner provided by the contract at any time within 5 years (or longer if the contract so provides) from the end of the contract year in which the obligation to take occurred, provided the purchaser must take the gas within the term of contract under which the gas is being purchased.

(g) The applicable area rate shall be adjusted upward or downward to reflect 87.5 percent of any change in state or federal production, severance, gathering or similar taxes effective after October 1, 1970.

(h) If gas produced offshore is delivered onshore, at the sole cost of the producer, the applicable area rate for such offshore gas shall be increased by one cent.

[13,645]

(i) As to all contracts dated after August 1, 1971, together with all sales conditioned to the outcome of Docket No. R-338, under which a pipeline transports liquid hydrocarbons or liquefiable hydrocarbons and related fuel, the contract provisions shall control and the ceiling price shall not be reduced; provided, however, if such contracts do not provide for a transportation fee at least equal to the amount obtained by the following formula:

Liquefiable Hydrocarbons and Related Fuel—.02 cents per Mcf per mile

Liquid Hydrocarbons—20 cents per barrel

then the payment to the pipeline, from and after August 1, 1971, shall be equal to the amounts set forth in the above formula. As to all contracts dated prior to August 1, 1971, except sales conditioned to the outcome of Docket No. R-338, the terms of the contract shall control and there shall be no reduction in the ceiling contract price because of such transportation.

(j) Prior to October 1, 1977, for contracts dated on or after October 1, 1968, and prior to October 1, 1976, for contracts dated prior to October 1, 1968, any seller seeking to charge a rate in excess of the applicable area rate must file a petition for waiver or amendment of this section pursuant to section 1.7(b) of the Commission's Rules of Practice and Procedure (18 CFR 1.7(b)) fully justifying the relief sought in the light of this opinion and order. Prior to October 1, 1977, for contracts dated on or after October 1, 1968, and prior to October 1, 1976, for contracts dated prior to October 1, 1968, a seller may not file any rate increase in excess of the applicable area rate herein prescribed unless and until the Commission grants the petition.

[13,646]

(k) The Southern Louisiana area consists of the portion of the State of Louisiana lying south of the 31° parallel and including all areas, both state and federal, in the Gulf of Mexico off the shore of Louisiana.

(B) The applicable area rate as defined in ordering paragraph (A) above, shall be effective from and after the effective date of this order and any amounts collected

in excess thereof on or after that date shall be subject to refund plus interest at 7 percent.

Refunds due under the proceedings in Docket Nos. AR61-2, *et al.*, Docket No. AR69-1, and Docket Nos. G-13221, *et al.*, together with all dockets in Opinion No. 575, issued March 12, 1970, shall be based upon amounts collected by respondent in excess of the following prices:

(a) For deliveries prior to January 1, 1965, 20.625 cents per Mcf for onshore gas and 19.625 cents per Mcf for offshore gas.

(b) For deliveries from January 1, 1965, to October 1, 1968, 21.25 cents per Mcf for onshore gas and 20.25 cents per Mcf for offshore gas.

(c) For deliveries from October 1, 1968, to January 1, 1971, 30.5 percent of the difference between revenues during this period based on rates prior to October 1, 1970, and the revenues resulting during this period through the application of rates established in Opinion Nos. 546 and 546-A, as modified by Opinion No. 567. This percentage factor of 30.5 may be increased as high as 33 percent, in order to bring the refund obligations in this period to within a range of one percent of $150 million dollars.

(d) For deliveries on or after January 1, 1971, the base area rates prescribed in (A) (c).

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Amounts collected by the respondent, even though in excess of the prices in (a) and (b), shall not be subject to refund, to the extent they were collected pursuant to a prior settlement agreement approved by this Commission, or were not in excess of a price set out in a perma-

nent certificate issued by the Commission, or were not in excess of the refund floor provided in an applicable temporary authorization.

(C) Within 20 days from the date of this order, each respondent shall file the data presently required by Section 154.94(f)(1) of the Regulations under the Natural Gas Act or FPC Form 280 or a Quality Statement as a supplement to each of its rate schedules reflecting all rate decreases required to bring any or all of its rates into conformity with the applicable base area rate established in (A)(c) to be effective as of August 1, 1971. Each respondent may increase its rates to the applicable base area rates, to the extent permitted by contract, by filing within 20 days from the date of this order, the data presently required by Section 154.94(f)(i) of the Regulations under the Natural Gas Act or FPC Form 280 or a Quality Statement as a supplement to each of its rate schedules to become effective 65 days from the date of the Commission's order. Any rate increase not filed within the 20 day period shall not become effective until 90 days from the date of such filing.

(D)(a) Each person having on file with this Commission a rate schedule with regard to gas produced or sold within the Southern Louisiana area, or hereafter filing such a rate schedule (including a contract or amendment adding acreage or new reserves) shall, with regard to such rate schedule or amendment, file by November 1, 1971, or within 90 days from the date of first delivery under the rate schedule or amendment, whichever is later, a statement in conformity with Appendix C hereto. All statements herein required shall be signed by both the seller and the purchaser. If the seller and the purchaser are unable to agree upon any or all of the particulars entering into the computation of the applicable area rate, the seller shall file the statement

herein required which shall indicate absence of agreement and supply the information required to

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compute the applicable rate as well as the contentions of the parties with respect to the quality and amount of the adjustment for any item in dispute. The purchaser may file a separate statement setting forth its views within the period herein provided.

(b) The statement filed hereunder which reflects full agreement between the seller and purchaser shall be deemed accepted by the Commission unless the Commission, within 120 days after such filing, shall otherwise order. In the event of disagreement between the seller and purchaser or, where the Commission otherwise determines that the statement filed is inconsistent with the provisions of ordering paragraph (A) herein, the Commission will after appropriate proceedings, prescribe the applicable area rate to be applied.

(c) Any respondent will be exempt from filing the statement required by subparagraph (a) hereof for any sales which are "small producer sales" as defined in the Commission's Regulations under the Natural Gas Act if a producer seeks to qualify thereunder. If the Commission subsequently finds that such a producer does not qualify as a small producer such applicant shall be required to file the statement required by subparagraph (a) hereof within 90 days after any such Commission finding.

(E) *Refund Reports.* By November 1, 1971, refund reports shall be filed with this Commission in triplicate, and one copy served on the buyer, by each producer involved in one or more of the proceedings set out in Ap-

pendix B and as to which refunds are required under the terms of this decision. Such reports shall be verified by the respective purchasers at the time of filing. The report shall set forth the following information (if more than one rate schedule is involved the respondent shall supply the information for each schedule separately):

[13,649]

(a) The rates collected during the period subject to refund, and the periods during which each rate was collected.

(b) The volume of gas sold at each such rate.

(c) The difference between the total amount collected during the period subject to refund and the amount that would have been collected at the applicable area rate as defined herein subject to the proviso of ordering paragraph (B).

(d) The computation of the applicable area rate and the basis for any difference between it and the base area rate.

(e) The interest, at rates as specified in each proceeding, on the above refundable excess revenues, subject to the limitation by Section 105.102 (f) of the Commission's Regulations under the Natural Gas Act. The interest shall be calculated to August 1, 1971.

(f) A statement as to whether the respondent elects to attempt to discharge its refund obligations, including interest, in the manner set forth in ordering paragraph (G).

(F) *Treatment of Refunds.* Each respondent, who does not elect to discharge its refund obligations (in-

cluding interest) in the manner set forth in ordering paragraph (G), shall retain the amounts shown in the report required under ordering paragraph (E), subject to further order of the Commission directing the disposition of those amounts.

[13,650]

(G) Each respondent may elect to discharge its refund obligation under this order through credits for dedication of new gas reserves to sale to interstate pipeline, after August 1, 1971, and prior to October 1, 1977 in addition to those new gas reserves already dedicated to interstate commerce as of October 1, 1970. Each respondent shall make such election by November 1, 1971, by filing notice with the Commission and sending a copy to the purchaser. If a respondent fails to file such notice of election by November 1, 1971, the respondent will be deemed to have elected the alternative prescribed in (F). New gas reserves shall mean the estimated original recoverable reserves in place, less any prior production therefrom, under a contract dated on or after October 1, 1970, or new discoveries (as defined in Section 2.56(f)(2) of the Commission's Rules of Practice and Procedure) made on or after October 1, 1970. The amount of the credit shall be one cent for each Mcf so dedicated, provided that, except in case of a *bona fide* and rejected offer in writing of new dedications as hereinafter set forth, not more than fifty percent of the refund obligation owed any one buyer may be discharged by new dedications to another buyer or buyers in amounts greater than necessary to discharge seller's existing refund obligation, if any, to such other buyer. New dedications, to the extent greater than necessary to discharge an existing refund obligation to the buyer, shall be used to reduce the producer's remaining refund obligations

to all other buyers as to each in proportion that the obligation owed to each bears to the remaining total refund obligation of such producer, except that, if a buyer to whom a refund is owing by a producer rejects a *bona fide* offer of new dedications from the producer, the producer may, if it dedicates the offered reserves to sale to another interstate pipeline, credit against its obligation to the prospective buyer which first rejected the offer any unused credit over and above that which can be used to reduce the producer's refund obligation to the actual buyer. In no event shall the producer's total refund obligations be reduced by more than one cent per Mcf of new dedications. If a producer's refund obligation has not been completely discharged by October 1, 1977, such producer will be obligated to refund in cash plus 7 percent interest effective from August 1, 1971, the outstanding refund obligation.

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(H) The procedures for establishing and revising the amount of reserves in new dedications, and the reports required, will be established by later order of the Commission, in conformity with the Settlement Proposal (Appendix A).

(I) The proceedings shall remain open for such further action as may be necessary with respect to individual respondents and such other action as may be necessary in the premises.

(J) The effective data of this Opinion and Order shall be August 1, 1971.

(K) If any provision of this order, or the application of such provision to any person or circumstance, shall be held invalid, the remainder of the order, and the ap-

plication of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

(L) Twenty-five copies of any application for rehearing or petitions for reconsideration shall be filed with the Commission in addition to the copies served on the parties to this proceeding.

(M) The Secretary shall cause prompt publication of the findings and ordering paragraphs, together with notice of the availability of this entire Opinion, to be made in the *Federal Register*.

By The Commission.

KENNETH F. PLUMB
Secretary

Opinion and Order

[13,652]

APPENDIX A

[Caption Omitted]

MOTION OF UNITED DISTRIBUTION COMPANIES FOR PROMULGATION OF SETTLEMENT PROPOSAL

The following companies (hereinafter referred to as "United Distribution Companies" or "UDC")

AMERICAN NATURAL GAS SYSTEM
- Michigan Consolidated Gas Company
- Wisconsin Gas Company

CENTRAL ILLINOIS LIGHT COMPANY

CENTRAL ILLINOIS PUBLIC SERVICE COMPANY

CITIZENS GAS AND COKE UTIITY

COLUMBIA GAS SYSTEM
- Columbia Gas of Kentucky, Inc.
- Columbia Gas of Maryland, Inc.
- Columbia Gas of New York, Inc.
- Columbia Gas of Ohio, Inc.
- Columbia Gas of Pennslyvania, Inc.
- Columbia Gas of West Virginia, Inc.
- Ohio Valley Gas Company
- Virginia Gas Distribution Company

CONSOLIDATED NATURAL GAS SYSTEM
- Consolidated Gas Supply Corporation
- The East Ohio Gas Company
- The Peoples Natural Gas Company
- The River Gas Company
- West Ohio Gas Company

CONSUMERS POWER COMPANY

THE DAYTON POWER AND LIGHT COMPANY

EQUITABLE GAS COMPANY

ILLINOIS POWER COMPANY

MICHIGAN GAS UTILITIES COMPANY

NATIONAL FUEL GAS SYSTEM
- Iroquois Gas Corporation
- Pennsylvania Gas Company
- United Natural Gas Company

Opinion and Order

NIAGARA MOHAWK POWER CORPORATION

NORTHERN ILLINOIS GAS COMPANY

ORANGE & ROCKLAND UTILITIES, INC.

THE PEOPLES GAS SYSTEM
North Shore Gas Company
The Peoples Gas Light and Coke Company

SOUTH CAROLINA ELECTRIC & GAS COMPANY

pursuant to Section 1.12 of the Rules of Practice and Procedure of the Federal Power Commission ("Commission"), hereby respectfully move (1) that the

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Commission issue an order in the above-styled proceedings promulgating the terms and conditions set forth in the Settlement Proposal for the Southern Louisiana Area attached hereto as Appendix A and made a part hereof by reference, and (2) that, as a predicate for such action, the Commission adopt all such procedural orders, hear such additional evidence, conduct such further hearings, and take all such other steps as may be necessary and proper to the promulgation of such terms and conditions.

In support of such motion, United Distribution Companies respectfully represent:

I

United Distribution Companies is an *ad hoc* voluntary group of 32 distribution utilities listed above serving approximately 10,300,000 customers at retail in the States of Illinois, Indiana, Kentucky, Maryland, Michigan, New York, Ohio, Pennsylvania, South Carolina, Virginia, West Virginia and Wisconsin. The principal cities and metropolitan areas wholly dependent on members of the United Distribution Companies group for their supplies of gas include Albany, Buffalo, Chicago, Cleveland, Columbus,

Dayton, Detroit, Indianapolis, Milwaukee, Pittsburgh and Syracuse. The population dependent upon this group of distribution companies is estimated to be 48,000,000 people. The United Distribution Companies group represents approximately 25% of the gas distribution operations throughout the whole United States.

The bulk of the natural gas supplies of UDC is purchased from the major interstate pipeline companies, which, in turn, secure major portions of their supplies by purchase from independent producers who operate in the Southern Louisiana area and who are Respondents in the above-styled *Southern Louisiana Area* rate cases.

[13,654]

United Distribution Companies are and have been participating in the proceedings in Docket No. AR69-1 as parties by intervention and those which are not already parties will promptly file a petition to intervene in Docket Nos. AR61-2, *et al.*

II

On April 1, 1970, the Presiding Examiner to whom Docket No. AR69-1 has been assigned for hearing entered an Order convening a settlement conference, pursuant to Section 1.18 of the Commission's Rules, and directed the parties to confer for the purpose of attempting to formulate a Settlement Proposal (Tr. 1075).

Pursuant to such Order and direction of the Presiding Examiner, the parties, including producer respondents, pipeline purchasers, distribution companies and municipal distributors who are supplied with natural gas from the Southern Louisiana Area, the Public Service Commission of the State of New York and the Commission Staff, have held lengthy and exhaustive conferences.

In these conferences, there has been developed the Settlement Proposal attached hereto as Appendix A, which proposal has the unanimous support of United Distribution Companies and which, we believe and aver, has the support of most, but not all, of the other parties participating in such conferences.

III

The Settlement Proposal submitted herewith includes terms and conditions which resolve issues within, and necessarily requiring consideration by the Commission of Docket Nos. AR61-2, *et al.*, as well as AR69-1.

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IV

The evidence already introduced into the record in Docket No. AR69-1 conclusively demonstrates a material and growing gas shortage, and that there must be a substantial increase in exploratory and developmental activity and a bringing forth of additional supplies of gas from the Southern Louisiana Area to meet the demands of all consumers supplied by this Area. Section 11 of Appendix A includes a representation by the supporting producers that the ceiling prices and other terms and conditions included in Appendix A will provide incentives for these essential purposes.

V

The prior decisions of this Commission, the decision of the Supreme Court in *Permian* and the decision of the Fifth Circuit Court of Appeals in the initial *Southern Louisiana Area Rate Case* all emphasize the important bearing which supply and demand have upon the fixing of just and reasonable area rates.

In part the supply problem can be met through the institution of incentive ceiling prices, but additional incentives are also provided in the settlement proposal by giving the producer an opportunity to substitute gas, at price levels which are in the public interest, for refund dollars. If a producer who has a refund obligation fails to find such substitute supplies of natural gas or fails to dedicate the same to jurisdictional sales in interstate commerce, the proposed settlement requires that he make the necessary refunds in cash with interest.

In view of the supply and demand situation as demonstrated by the record already made in AR69-1 and the absolute necessity for providing incentives for increased exploration and development in the Southern Louisiana Area, United Distribution Companies believe and, therefore, aver that the ceiling prices and other terms and conditions submitted herewith are just and reasonable, are in the best interests of the consumers and are in the public interest.

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WHEREFORE, United Distribution Companies move the Commission as above set forth.

Respectfully submitted,

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APPENDIX A

SETTLEMENT PROPOSAL FOR SOUTHERN LOUISIANA AREA

SECTION 1. DEFINITIONS.

For the purposes hereof, the following definitions apply.

1.1 *Associated Gas* is natural gas which in its natural state was found in contact with crude oil in a reservoir.

Dissolved Gas is natural gas which is found in solution with crude oil in the reservoir.

Non-Associated Gas is natural gas which in its natural state was not found in contact with crude oil in a reservoir.

1.2 *Southern Louisiana Area* is as defined in Opinion Nos. 546 and 546-A.

Onshore is that part of the Southern Louisiana Area in which gas is produced subject to the jurisdiction of the State of Louisiana with respect to production, severance, gathering or similar taxes.

Offshore is that part of the Southern Louisiana Area seaward from the Onshore Area.

Disputed Zone is that part of the Southern Louisiana Area as to which there is a dispute between the State of Louisiana and the United States of America as to whether said area lies within the taxing jurisdiction of the State of Louisiana.

1.3 *Effective Dtae* is the first day of the calendar

month following the issuance of the Commission's order incorporating the terms and conditions herein contained.

1.4 *New Gas Reserves and Reporting Thereof.*

New Gas Reserves shall mean the estimated original recoverable reserves in place, less any prior production therefrom, (a) which

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are initially committed to a jurisdictional sale under a contract dated on or after October 1, 1970, provided that warranty contracts shall be excluded except under Section 8.2.5, or (b) which are new discoveries (as presently defined in Section 2.56(f)(2) of the Commission's Rules of Practice and Procedure) made on or after October 1, 1970 on acreage committed by a contract for sale subject to the Commission's jurisdiction. For purposes hereof, New Gas Reserves shall not include commitments either directly or indirectly by one independent producer to any other independent producer. The volume of New Gas Reserves shall be as agreed upon in the usual manner by the producer and the purchaser, or as otherwise prescribed in the contract, at the time of entering into the gas sales contract under (a) above or at a time subsequent to the new discovery under (b) above.

Upon request by the producer the purchaser shall make a report of such New Gas Reserves to the Commission; *provided, however,* in the case of (a) above, a request by a producer shall not be made prior to the filing of its application for a certificate. Such reports shall be certified by a responsible official of the purchaser or a qualified independent consultant as constituting a good faith estimate but not a guarantee or representation by such official or consultant that the quantity will be recovered. All reports of New Gas Reserves shall indicate,

among other things, (i) the volume of reserves, if any, for which refund credit is claimed by the producer under Section 8.2.2, (ii) the dollar amount of any such credit claimed, (iii) the names of the purchaser or purchasers as to which credit is claimed, (iv) name of the producer or

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producers claiming the credit and (v) the designation of the rate schedule or the certificate docket number related to such New Gas Reserves.

Such New Gas Reserves as reported by the purchaser to the Commission shall be applied as provided in Sections 3 and 8 hereof; *provided, however*, the reserve estimate shall be subject to review by the Staff of the Commission, and will be applied hereunder if the Staff does not notify the producer and purchaser within ninety (90) days after the date such report is filed that it disagrees with such estimate.

SECTION 2. MISCELLANEOUS PROVISIONS.

2.1 *Contract Price.*

Notwithstanding any other provision herein contained, no rate may exceed the total price including any adjustments to such price as allowed by contract.

2.2 *Associated, Dissolved, and Non-Associated Gas.*

Since associated and dissolved gas in Southern Louisiana have pressure characteristics similar to non-associated gas, there will be no distinction between associated, dissolved, and non-associated gas or residue gas derived therefrom for any purpose hereunder, except as provided in the sales contract and Section 2.6. Each will

be governed by the same ceiling prices and certification prices.

2.3 *Quality.*

Quality will be governed by the sales contracts and, except for heating value, will not affect the ceiling prices and refund

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floors for gas. The ceiling prices set out in Section 3 and refund floors set out in Section 8 shall be adjusted upward or downward by the Btu adjustment as provided for by Opinion Nos. 546 and 546-A. For the purpose of the refund computations under Section 8 hereof the Btu content applicable to each producer's rate schedule shall be that reported on its Quality Statement filed pursuant to Opinion Nos. 546 and 546-A.

2.4 *Delivery Point.*

The delivery point standard will be that set forth in Opinion Nos. 546 and 546-A. The ceiling prices in Section 3 and the refund floors set out in Section 8 shall be adjusted consistent therewith.

2.5 *Unit of Measurement.*

The unit of measurement will be one cubic foot measured at 15.025 psia at 60° Fahrenheit.

2.6 *Take or Pay Provision as to Non-Associated Gas.*

From and after the Effective Date, non-associated gas which has been paid for but not taken may be taken or "made-up" in the manner provided by the contract at any time within five (5) years (or longer if permitted by the contract) from the end of the contract year in which the obligation to take occurred; *provided, however,* the purchaser must take the gas within the term of the

contract under which the gas is being purchased or the right to take shall lapse upon termination of the contract unless the contract otherwise provides.

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2.7 The terms hereof do not dispose of any issues in the *Rayne Field* (Docket Nos. G-12446, *et al.*) or *Bastian Bay Field* (Docket Nos. CI66-910, *et al.*) proceedings.

2.8 *New Gas Reserves Records.*

There shall be maintained by the Commission and kept open in its public files a special running and cumulative record of the quantities of all New Gas Reserves in the Southern Louisiana Area committed to jurisdictional sales and reported to the Commission under the terms of Section 1.4 hereof. Such record shall state separately (a) the volume of New Gas Reserves committed for the purpose of refund credits described in Section 8.2.2 hereof and (b) the volume of New Gas Reserves committed for which credit is given for the purpose of determining when the contingent escalations provided in Section 3.3.2 shall become operative.

SECTION 3. CEILING PRICES.

3.1 *Ceiling Prices in General.*

Comencing with the Effective Date, the ceiling prices per Mcf, subject to adjustment pursuant to other provisions hereof, applicable to all jurisdictional deliveries made under contracts subject hereto for sales of gas produced in the Southern Louisiana Area are as follows:

(a) Contracts Dated Prior to October 1, 1968:

Onshore	22.375¢
Offshore*	21.375¢

* Subject to Section 9 hereof, Onshore ceiling prices will apply to Disputed Zone gas.

(b) Contracts Dated On or After October 1, 1968: **

Onshore	26.0¢
Offshore	26.0¢

** Includes contracts set out in Appendix B of Opinion No. 546-A and any other existing contracts ultimately treated in a similar fashion by the Commission, prospectively from the date of the Commission's order regarding such contract.

3.2 *Newly Discovered Reservoirs on Committed Acreage.*

If a new reservoir is or was discovered on or after October 1, 1968, on acreage committed by a contract dated prior to October 1, 1968, the ceiling price applicable to the gas produced from such new reservoir shall be the ceiling price applicable to contracts dated on or after October 1, 1968. The method of establishing that a new reservoir has been discovered and determining the volume of gas produced from such reservoir shall be that presently set out in Section 2.56(f)(2) of the Commission's Rules of Practice and Procedure.

3.3 *Escalations of Ceiling Prices.*

3.3.1 *Periodic Escalations of Ceiling Prices.*

The ceiling prices applicable to contracts dated prior to October 1, 1968, except as to newly discovered reservoirs under Section 3.2, shall escalate by one-half cent (0.5¢) per Mcf on October 1, 1973.

The ceiling prices applicable to contracts dated on or after October 1, 1968 and to newly discovered reservoirs under Section 3.2 shall escalate by one cent (1.0¢) per Mcf on October 1, 1974.

3.3.2 *Contingent Escalations of Ceiling Prices.*

For contracts dated prior to October 1, 1968, except newly discovered reservoirs under Section 3.2, each of the ceiling prices as set forth in Section 3.1 and as modified by Sections 2.3, 2.4, 3.3.1, 3.4 and 3.5, shall be increased by the commitment of New Gas Reserves in the Southern Louisiana Area prior to October 1, 1977, to jurisdictional sales subject to the following terms and conditions:

(a) New Gas Reserves committed by each producer and reported by the purchaser pursuant to Section 1.4 hereof shall first be aplied to the satisfaction of such producer's outstanding refund obligations pursuant to Section 8.2.2 hereof and when and to the extent so applied shall be excluded under this Section 3.3.2.

(b) When the New Gas Reserves Record maintained pursuant to Section 2.8 reflects that a total of seven and one-half (7.5) trillion cubic feet of New Gas Reserves in the Southern Louisiana Area have been committed to jurisdictional sales prior to October 1, 1977, and recorded for the purpose of this Section 3.3.2, the Commission shall, within fifteen (15) days, issue a public notice to such effect. Upon the issuance of such notice the ceiling prices then in effect shall be increased by one-half cent (0.5¢) per Mcf and such increased ceiling prices shall continue in effect unless and until further adjusted.

(c) Further, successive one-half cent (0.5¢) per Mcf increases in the ceiling prices shall be made in a similar manner and at such time as such record and notice reflect that a total of eleven and one-quarter (11.25) trillion cubic feet of New Gas Reserves

have been committed to jurisdictional sales prior to October 1, 1977 and recorded for the purpose of this Section 3.3.2 and again at such time as such record and notice reflect a total of fifteen (15) trillion cubic feet of such reserves in the Southern Louisiana Area have been so committed to jurisdictional sales prior to October 1, 1977 and recorded for the purpose of this Section 3.3.2.

(d) For the purpose of this Section 3.3.2 New Gas Reserves under (a) of Section 1.4 hereof shall be considered to have been committed when such commitment is not subject to termination by the producer or the producer has accepted a temporary authorization or permanent certification issued by the Commission authorizing the sale. In the event that the Commission should ultimately deny the application for a permanent certificate as to any sale from such New Gas Reserves, such reserves shall be eliminated from the cumulative record being maintained under Section 2.8 hereof. New Gas Reserves under (b) of Section 1.4 hereof shall be considered to have been committed when the report provided by Section 1.4 has been filed by the purchaser with the Commission.

(e) Notwithstanding any other provision hereof, if, after a contingent escalation has been made effective hereunder and increased rates based thereon could have been collected, the volume of New Gas Reserves as reported pursuant to Section 2.8 on which such contingent price escalation is predicated is reduced to a level below that which would have caused the escalation to become effective, the ceiling price escalation shall thereupon be rescinded and any rate increases made effective pursuant to such ceiling price escalation shall, thirty (30) days from the date of such rescission, be reduced to the levels that would be

permitted if such contingent escalation had not become effective. Such reduction shall not be required, however, if, by the expiration of the thirty (30)-day period described above, the volume of New Gas Reserves for which credit is given toward the contingent escalations is restored to the level which would cause the contingent escalation to become effective. Following the rescission of any contingent escalation and the resulting reduction of rates, the effective date of the succeeding contingent escalation, if any, which may thereafter be permitted hereunder by reason of the commitment of New Gas Reserves shall be postponed by the same number of days as the rates permitted by the previously rescinded ceiling price escalation could have been collected prior to its rescission.

3.4 *Tax Changes.*

The ceiling prices specified above shall change upward or downward to reflect eighty-seven and one-half percent (87.5%) of any new or amended state or Federal production, severance, gathering or similar taxes, or eighty-seven and one-half percent (87.5%) of any changes in the existing rates of such taxes becoming effective after October 1, 1970.

3.5 *Offshore Gas Delivered by a Producer Onshore.*

If gas produced Offshore is delivered, at the sole cost of the producer, inland from the so-called "Chapman Line" (as delineated on the map attached as Exhibit A to an agreement between the United States and the State of Louisiana, dated October 12, 1956, pertaining to the Louisiana Tideland dispute), the ceiling price for such gas shall be the applicable Offshore price plus one cent (1¢) per Mcf.

Notwithstanding the above, if on a petition for special relief the Commission finds that the cost to the producer of bringing the Offshore gas inland from the Chapman Line exceeds one cent (1.0¢) per Mcf, the ceiling price to be applied prospectively will be the Offshore ceiling price plus the reasonable charge as determined by the Commission for bringing such gas to the delivery point inland from the Chapman Line.

SECTION 4. IMPLEMENTATION OF RATE CHANGES.

4.1 As to any change in rate required or permitted as of the Effective Date, each producer within twenty (20) days from the date of the Commission's order promulgating the terms hereof (a) shall file the data presently required by Section 154.94 (f) (1) of the Regulations Under the Natural Gas Act or FPC Form 280 as a supplement to each of its Rate Schedules reflecting all rate decreases required under the applicable ceiling price provided for herein, to become effective as of the Effective Date and (b) may increase its rates to the applicable ceiling price provided herein to the extent permitted by contract, by filing the data presently required by Section 154.94 (f) (1) of the Regulations Under the Natural Gas Act or FPC Form 280 as a supplement to each of its Rate Schedules to become effective sixty-five (65) days from the date of the Commission's order promulgating the terms hereof. Any producer rate increase which is not filed within such twenty (20)-day period shall not become effective until ninety (90) days from the date of such filing.

4.2 As to any change in rate resulting from the operation of Sections 3.3.1, 3.3.2 and 3.4 hereof, each producer may increase its rates to the applicable ceiling price provided herein to the extent permitted by contract by filing supplements to its Rate Schedules at least sixty-five (65) days prior to the date such change in rate is proposed to be made effective.

4.3 As to any change in rate which by the terms of the contract occurs subsequent to the Effective Date, each producer may file its supplement to its Rate Schedule at least sixty-five (65) days prior to the date such change in rate is proposed to be made effective; *provided, however,* such proposed rate shall not exceed the applicable ceiling price provided herein.

4.4 In order to implement any rate increase permitted hereunder, the producer shall file a supplement to the applicable Rate Schedule subsequent to the date of the Commission order promulgating the terms hereof, and if such supplement provides for a rate greater than that being collected under such Rate Schedule at the time of such filing, such rate increase shall not be applied to any delivery made prior to the effective date of the change in rate as provided herein.

4.5 In the event the Commission during the term provided in Section 10 hereof suspends, beyond the date upon which it was to become effective, a rate increase permitted by contract and filed in accordance with the foregoing provisions of this Section 4 which did not exceed the applicable ceiling price then in effect hereunder, the producer shall be free of the ceiling price limitation herein as to such contract; *provided, however,* suspension of the proposed increase in rate

for one day solely because of a dispute as to whether the proposed increase is authorized by the contract or the provisions hereof shall not operate to free the producer of the ceiling price limitation herein.

4.6 Pipelines which as of the date of the Commission order promulgating the terms hereof, are not otherwise authorized to track rate changes of their suppliers resulting from changes in the price of gas from the Southern Louisiana Area shall be required to reflect in their rates the jurisdictional portion of all supplier rate reductions applicable to Southern Louisiana, and shall be permitted to increase their rates solely to reflect the jurisdictional portion of any supplier rate increases resulting from the application of the provisions hereof, without suspension except to the date, if any, that such supplier rate increase is suspended, and without refund obligation except to the extent of the jurisdictional portion of any refunds actually received from such suppliers as a result of such rate increases; *provided, however,* that if the rates then being charged by a pipeline are being collected subject to refund, this provision will not diminish the refund obligation otherwise applicable to such rates but such obligation will be in addition to any refunds which may arise hereunder. The rate reductions required and the rate increases authorized shall not be made until the unit amount computed under Section 4.7(c) below is five one-hundredths of one cent (.05¢) per Mcf or more, nor at any time less than ninety (90) days following the prior tracking increase or decrease hereunder. The effective date of any rate adjustment hereunder shall be not less than thirty (30) days after filing but not prior to the date upon which its supplier's rate adjustment becomes effective. The

Commission's order promulgating the terms hereof is to waive the provisions of Section 154.63 of the Regulations under the Act as to rate adjustments provided for herein upon condition that the purchaser filing a rate adjustment hereunder submits working papers satisfactory to the Commission which show the computation thereof concurrently with the filing.

4.7 All pipeline rate adjustments filed pursuant to the provisions of this Section 4 shall be computed by:

(a) Determining the difference between the supplier rate in effect prior to its change in rate (base price) and the new supplier rate under each applicable Rate Schedule;

(b) Multiplying such difference by the actual volume of gas received from such supplier under such Rate Schedule during a period of twelve (12) consecutive months ending not less than thirty (30) nor more than ninety (90) days prior to the date the pipeline files its revised tariff sheets; and

(c) Dividing the net aggregate amount of such increases and decreases by the pipeline's total sales volume (exclusive of the pipeline's wellhead sales, if any) for the same twelve (12)-month period.

The amount per Mcf so computed shall constitute the unit change in the pipeline's jurisdictional rates, to be reflected in the commodity component or one-part rate to the nearest one-hundredth of one cent (.01¢), as the case may be, in accordance with the other provisions hereof.

The tracking provisions of these Sections 4.6 and 4.7 shall terminate as to any pipeline upon the effective date of Commission authorization of a tracking (or other purchased gas adjustment) procedure for such pipeline, if such procedure is applicable to the volumes of Southern Louisiana gas purchased by the pipeline from all of its suppliers.

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4.8 The jurisdictional portion of all cash refunds received by the pipelines (1) under the provisions of this Section 4; and (2) under Section 8.1(c) hereof, unless separate flow-through obligations are imposed by the pipeline's individual company tracking authorizations shall, to the extent attributable to gas supply costs reflected in pipeline tracking increases, be refunded to the pipeline's jurisdictional customers as ordered by the Commission.

4.9 If on the Effective Date hereof, a pipeline is operating under a tracking procedure which is applicable to the volumes of Southern Louisiana gas purchased by the pipeline from all of its suppliers, authorized by the Commission in another proceeding, such tracking provision shall continue in effect as to volumes of gas from the Southern Louisiana Area during the term hereof unless modified or terminated by the Commission.

SECTION 5. TRANSPORTATION OF LIQUIDS AND/OR LIQUEFIABLE HYDROCARBONS FOR PRODUCERS IN THE SOUTHERN LOUISIANA AREA.

5.1 As to all contracts dated prior to the Effective Date, except sales conditioned to the outcome of Docket R-338, under which a pipeline transports, or is obligated to transport, liquids and/or liquefiable hydrocarbons, in-

cluding related fuel, for the producer, the terms of such contracts shall control. The ceiling price provided herein which is applicable to such contract shall not be reduced because of such transportation or obligation to transport.

5.2 As to contracts dated after the Effective Date, together with all sales conditioned to the outcome of Docket No. R-338, the contract provisions shall control and the ceiling price applicable to such

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contracts shall not be reduced by virtue of the transportation or obligation to transport such liquids and/or liquefiable hydrocarbons; *provided, however,* if such contracts do not provide for a transportation fee at least equal to the amount obtained by the following formula:

Liquefiable Hydrocarbons and Related Fuel—two-hundredths of a cent (.02¢) per Mcf per mile

Liquid Hydrocarbons—twenty cents (20¢) per barrel

then the payment to the pipeline, from and after the Effective Date hereof, shall be equal to the amounts set forth in the above formula for such transportation as is actually performed on behalf of the producer.

5.3 Any revenues received by a pipeline for transportation of liquids and/or liquefiable hydrocarbons shall be credited against such pipeline's cost of service in determining its jurisdictional rates. During the term hereof, no other adjustment or allocation shall be made in the pipeline's cost of service as a result of such transportation service.

SECTION 6. CERTIFICATE AUTHORIZATIONS.

Subject to Sections 2.7 and 9 hereof, all sales in the Southern Louisiana Area under producer gas sales contracts for which applications for permanent certificates were pending before the Commission as of November 1, 1970 shall be permanently certificated at the contract prices agreed to by the seller and purchaser up to the applicable ceilings

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specified herein and without price conditions which would reduce contractually authorized prices below the ceiling prices set forth in Section 3, as adjusted herein. This Section shall operate prospectively only.

SECTION 7. PRODUCER RIGHTS FOLLOWING THE EXPIRATION OF CONTRACTS DURING THE TERM OF THE SETTLEMENT.

When a gas sales contract expires during the term hereof, and the price being charged for gas sold under such contract is less than the ceiling price applicable to gas of the same contract vintage, the producer may, at that time, file for and collect a rate up to but not exceeding the then applicable ceiling price, including the application of Section 3.2, for gas of the same contract vintage as the original contract. Nothing contained above shall prejudice any party with respect to whether the sale shall be continued.

This Section shall not be construed as preventing, upon fulfillment of the contract, the termination of a limited term contract, a contract to sell limited quantities of gas, or a warranty-type contract, when those sales were expressly certificated by the Commission as such.

SECTION 8. REFUNDS AND DISPOSITION THEREOF.

8.1 Subject to Sections 2.7 and 9 hereof, as to amounts collected by all producers under sales from the Southern Louisiana Area subject to refund under a Commission order in the proceedings in (1) Docket Nos. AR61-2, *et al.*; (2) Docket No. AR69-1; (3) *Union Texas Petroleum, et al.*, Docket Nos. G-13221, *et al.*, together with all dockets covered by Opinion No. 575; (4) any pending rate suspension dockets

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not consolidated in Docket Nos. AR61-2, *et al.*, except amounts based on differences in contract interpretation; (5) any proceeding involving an increase in rate filed on or after October 1, 1970; and (6) any other pending certificate docket covered hereby, refunds shall be calculated in the following manner:

(a) With respect to deliveries made prior to October 1, 1968, the ceiling prices per Mcf set out below, as adjusted by the terms of Sections 2.3 and 3.5, shall apply to all producers:

Prices for Refund Calculations

	For Deliveries Prior to January 1, 1965	For Deliveries From January 1, 1965 to October 1, 1968
Onshore	20.625¢	21.25¢
Offshore	19.625¢	20.25¢

In applying the above price levels, it is understood that any amount collected by a producer, even though in excess of the above prices, shall not be subject

to refund to the extent such collections were pursuant to a prior settlement agreement approved by the Commission, or collections were not in excess of the price set out in a permanent certificate issued by the Commission, or such collections were not in excess of the refund floor provided in a temporary authorization applicable thereto.

(b) With respect to deliveries made during the period October 1, 1968, to January 1, 1971 by all producers, refunds shall be calculated by applying thirty and one-half percent (30.5%) of the

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difference between revenues for this period based on rates in effect prior to October 1, 1970, and the revenue which would have resulted for this period through the application of rates established in Opinion Nos. 546 and 546-A, as modified by Opinion No. 567.

The available data submitted by the producers and reviewed by the Staff of the Commission, utilizing a thirty and one-half percent (30.5%) factor for the period October 1, 1968 to January 1, 1971, indicate that the total refund obligation, including accrued interest, of all producers in the Southern Louisiana Area under this subsection (b) and subsection (a) will fall within the range of one percent (1%) of one hundred-fifty million dollars ($150,000,000). If the refunds as determined above do not fall within the range of one percent (1%) of one hundred-fifty million dollars ($150,000,000), the thirty and one-half percent (30.5%) factor utilized for the period October 1, 1968 to January 1, 1971 shall be increased to a percent factor which will bring the total refund obligation to within a range of one percent (1%) of one hundred-fifty million dollars

($150,000,000), but such percent factor in no event shall exceed thirty-three percent (33%). The refund computation referred to in subsections (a) and (b) do not include the refunds provided for in subsections (c) and (d) below.

(c) With respect to collections for deliveries which are related to increases in rates filed on or after October 1, 1970, the increased amounts collected in excess of prices equal to the ceiling prices set out in Section 3.1, as adjusted, shall be refunded in cash.

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(d) With respect to collections for deliveries on and after January 1, 1971, at the rate levels in effect on October 1, 1970, all amounts collected in excess of prices equal to ceiling prices set out in Section 3.1, as adjusted, shall be refunded in accordance with the terms of Section 8.2 hereof.

For purposes of calculating refunds under subsections (a), (b), (c) and (d), above, the Onshore price will be applied to Offshore gas delivered inland from the Chapman Line and to gas sold from the Disputed Zone.

8.2 Within ninety (90) days after the Effective Date, each producer shall file a refund report with the Commission setting out the amount of its refund obligation to each purchaser, calculated in accordance with the provisions hereof, including accrued interest computed to the Effective Date. Such refund reports shall be verified by the respective purchasers at the time of filing. The producer shall also within ninety (90) days from the Effective Date either (A) elect to pay its refund obligation to the appropriate purchaser together with interest thereon as heretofore prescribed by the Commission for each

respective rate schedule or (B) in the alternative, file a notice that such producer elects to attempt to discharge its refund obligations together with accrued interest thereon other than those contemplated by Sections 8.1(c) and 9.1 by the method set out below. The notice of election shall be filed with the Commission with a copy to the purchaser. If the producer fails to file such notice of election within ninety (90) days from the Effective Date, the producer shall be deemed to have elected alternative (A) above.

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With respect to refund amounts reported as above and as to which producers elect alternative (A), further interest shall not accrue from the Effective Date to the date specified by the Commission for the payment in cash of such refunds; *provided, however*, after the date specified by the Commission for such cash refunds simple interest at seven percent (7%) per annum shall accrue on such refund obligations until the first day of the month in which payment is made. With respect to reported refund obligations as to which a producer has elected alternative (B), further interest shall not accrue on such amount during the five (5)-year period, or any extension thereof, after the Effective Date; *provided, however*, as to any outstanding refund obligation remaining after the end of said five (5)-year period, or any extension thereof, and subject to a petition for relief by such producer as provided in Section 8.2.6, simple interest shall accrue on said remaining obligation at the rate of seven percent (7%) per annum from the Effective Date to the first day of the month in which payment is made.

Notwithstanding the filing by a producer of its notice under alternative (B), such producer shall have

the right to pay at any time in full its remaining refund obligation to a particular purchaser when such remaining obligation, including interest, to such purchaser is less than one hundred thousand dollars ($100,000) or to any or all purchasers when it has discharged seventy percent (70%) of its aggregate refund obligation. Such payment shall include simple interest at a rate of seven percent (7%) per annum from the Effective Date to the first day of the month in which payment is made.

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8.2.1 Each producer who elects to follow alternative (B) shall establish and maintain accounts showing refund obligations by rate schedule and by purchaser. On or before March 15 of each year following the year in which such producer elected to pursue alternative (B), it shall file a report with the Commission showing the current status of such accounts, and the credits against such accounts for New Gas Reserves committed during the preceding calendar year, or the full discharge of the obligation. The portion of the report applicable to each purchaser shall be furnished to such purchaser at the time of filing.

8.2.2 Each producer who elects to follow alternative (B) shall have the right at any time on or after October 1, 1970 and during the five (5)-year period, or any extension thereof following the Effective Date, to discharge its refund obligation under Section 8 hereof through credits for jurisdictional sales of New Gas Reserves from the Southern Louisiana Area. The refund credit shall be one cent (1.0¢) for each Mcf of New Gas Reserves committed to jurisdictional sale from the Southern Louisiana Area. With reference to New Gas Reserves under (a) of Section 1.4, the one cent (1.0¢) per

Mcf credit shall be given as of the date such New Gas Reserves are reported to the Commission in accordance with Section 1.4; *provided, however,* such credit shall be nullified if prior to initial delivery: (i) the producer terminates the contract, or (ii) the producer rejects a temporary authorization or permanent certificate issued by the Commission authorizing the sale, or (iii) the Commission denies the application for a permanent certificate. New Gas Reserves under (b) of Section 1.4 shall be considered to have been committed when

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the report provided by Section 1.4 has been filed by the purchaser with the Commission.

Producer refund obligations to be discharged under alternative (B) are subject to the following provisions:

(a) Each producer shall discharge its entire refund obligation to each purchaser either through the commitment of New Gas Reserves or cash payment to such purchaser, or any combination thereof permitted under Section 8.2 hereof; *provided, however,* credit against such refund obligation shall be available up to but not exceeding fifty percent (50%) of such refund obligation for the commitment of New Gas Reserves under (d) below; *provided, further, however,* credit against such refund obligation shall be available under subsection (c) below.

(b) New Gas Reserves committed to a purchaser to which the producer has an outstanding refund obligation shall serve as a credit to reduce the obligation existing at the rate of one cent (1.0¢) for each Mcf of New Gas Reserves set forth in the report filed by the purchaser in accordance with Section 1.4 hereof.

(c) If a producer makes a *bona fide* offer in writing to commit New Gas Reserves to a purchaser to which such producer owes a refund obligation and such purchaser rejects the offer, the producer can receive the one cent (1.0¢) per Mcf credit against its refund obligation to the prospective purchaser which first rejected the offer by committing New Gas Reserves to any other jurisdictional sale in Southern Louisiana Area on substantially the same terms and conditions offered the rejecting purchaser; *provided, however,* that if and to the

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extent that the purchaser which did purchase the gas is also owed a refund obligation, the one cent (1.0¢) per Mcf credit shall be taken against that purchaser and the rejecting purchaser shall be charged only with the excess credit, if any; *provided, further, however,* if any excess credit still remains, it shall be applied in accordance with (d) below.

(d) Subject to the provisions of (a) above, if New Gas Reserves are committed to a purchaser to which the producer owes no refund or in an amount which exceeds the refund obligation owed to that purchaser, then the one cent (1.0¢) per Mcf credit shall be applied to reduce the producer's remaining refund obligations to all other purchasers as to each in proportion that the obligation owed to each bears to the remaining total refund obligation of such producer.

8.2.3 New Gas Reserves for which credit is received against a producer's refund obligation as provided in Section 8.2.2 shall be excluded from New Gas Reserves for which credit is given producers under Section 3.3.2.

8.2.4 If after five (5) years from the Effective Date there remain in the accounts maintained by a producer pursuant to Section 8.2.1 any sums not discharged by the producer, the producer shall within thirty (30) days refund such remaining amounts to the purchaser or purchasers to whom the amounts were due, together with simple interest at seven percent (7%) per annum from the Effective Date to the first day of the month in which payment is made, or advise the Commission and the purchaser that it will exercise the option or options provided in Sections 8.2.5 and/or 8.2.6 below.

8.2.5 If at the expiration of five (5) years following the Effective Date a producer has discharged through commitments covered by Section 8.2.2 sixty-five percent (65%) or more of its aggregate obligation as shown by the accounts maintained pursuant to Section 8.2.1, then such producer shall have an additional two (2)-year period in which to make such sales and obtain such credits as contemplated by Section 2.2.2; *provided, however*, notwithstanding the provisions of Section 8.2.2, a producer who has made a sincere and diligent effort to discharge its refund obligations but has not discharged at least sixty-five percent (65%) of its refund obligation, shall have the right to petition the Commission for special relief for a two (2)-year extension of the five (5)-year period at which time it can review and disclose all of its efforts to discharge such obligations but was unable fully to do so.

The purchasers to which the petitioner has a refund obligation remaining shall be served a copy of such petition for special relief and shall have an opportunity to respond.

If a producer has or has been granted an additional two (2) years within which to discharge its obligations in accordance with Section 8.2.2, a Corporate Warranty Contract commitment of New Gas Reserves may also be used to obtain refund credit. A Corporate Warranty Contract for the purposes of this subsection is defined as a contract between a producer of natural gas and a purchaser thereof, whereby the producer warrants and guarantees that it will deliver to the purchaser a specific volume of gas from New Gas Reserves in the Southern Louisiana Area for a fixed period of time not to exceed twenty (20) years, at stated prices and conditions.

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Under such contract no commitment of specific reserves, leases or fields is required.

8.2.6 Notwithstanding the provisions of Section 8.2.2, if at the end of the five (5)-year period or any extension thereof under Section 8.2.5 a producer has remaining undischarged refund obligations, it shall have the right to petition the Commission for special relief at which time it can review and disclose all of its efforts to discharge such obligations but was unable fully to do so. The purpose of this paragraph is to protect the producer having a refund obligation hereunder from having to make cash refunds after it has already made a sincere and diligent effort to find gas to meet its total refund obligation but has failed to do so.

SECTION 9. DELIVERIES FROM DISPUTED ZONE.

9.1 Gas sales from the Disputed Zone which were subject on October 1, 1970 (a) to escrow arrangements established pursuant to Commission order, or (b) to spe-

cific agreements between the producer and purchaser providing for collection or retention of amounts pending the resolution of the boundary dispute, or (c) to Commission order establishing refund procedures for collections pending the resolution of the boundary dispute, shall be treated as follows: With respect to deliveries from and after the Effective Date if no change in rate is made or from and after the date that any change in rate made in accordance with Section 4 hereof becomes effective, the ceiling prices established by Section 3 for Onshore gas, as adjusted by the terms hereof, shall apply and the producer may

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collect, subject to refund, the difference, if any, between the Offshore and Onshore prices, as adjusted by the terms hereof, and the purchaser shall not be obligated to reimburse the producer for state taxes, except as provided in Section 3.4. Upon final resolution of the boundary dispute, the producer shall refund all of said amounts collected in excess of the applicable Offshore price, as adjusted by the terms hereof, together with simple interest at seven percent (7%) per annum, for those areas ultimately determined to be in the Federal Domain, and the provisions of Section 8.2 hereof are not applicable to such refunds. As to gas delivered inland from the Chapman Line by the producer, the provisions of Section 3.5 will apply.

9.2 Payments into escrow under existing escrow agreements or arrangements approved and/or ordered by the Commission on or before October 1, 1970, under which agreements or arrangements certain amounts attributable to purchases from the Disputed Zone are being escrowed pending final adjudication of the boundary

dispute, shall be terminated sixty-five (65) days from the date of the Commission's order promulgating the terms hereof. Nothing herein shall prejudice the rights of any producer or purchaser to apply to the Commission for modification and/or termination of any escrow agreements or arrangements, or the disposition of any funds accumulated thereunder prior to the Effective Date, nor shall it prejudice the rights of any other party to oppose such application or claim such funds.

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SECTION 10. TERM.

The provisions herein contained shall be applicable during a term extending to:

October 1, 1976, as to contracts dated prior to October 1, 1968

October 1, 1977, as to contracts dated on or after October 1, 1968.

The provisions of this section, however, shall not be interpreted to relieve producers obtaining relief under Sections 8.2.5 and/or 8.2.6 from the obligations imposed upon them by Commission order relative to the granting of such relief.

SECTION 11. FUTURE EXPLORATION AND DEVELOPMENT IN SOUTHERN LOUISIANA AREA.

Each producer individually represents to the Commission that the ceiling prices and other provisions contained herein provide incentive for the exploration for and development of gas reserves in the Southern Louisiana Area. In view of the nature of producing and find-

ing hydrocarbons, it is unrealistic to expect producing companies to guarantee that the ceiling prices and other provisions contained herein will elicit a specific supply of gas; however, it is believed that the ceiling prices and other provisions contained herein will make funds available to the producing industry and create a regulatory atmosphere which should provide an incentive for a substantial increase in exploratory and developmental activities and make a major contribution to bringing forth additional supplies of gas from the Southern Louisiana Area to meet the demands of all consumers supplied by this area.

APPENDIX B

Part I

Respondents [1]

Aladdin Exploration Company, Inc.
Alco Oil and Gas Corporation
Amerada Hess Corporation
American Natural Gas Production Co.
American Petrofina Co. of Texas
American Well Service and Salvage Inc. and Annco Petroleum Corp.
Anadarko Production Company
An-Son Corporation
Apache Corporation
Apco Oil Corporation
Aquitaine Oil Corporation
Arnold, Agnes Cullen, *et al.*
Arnold, Isaac
Ashland Oil and Refining Company
Associated Oil and Gas Explor. Inc.
Atlantic Richfield Company
Azar, Dr. Paul J.
Aztec Oil and Gas Company
Austral Oil Company, Inc.
Ballard and Cordell Corporation
Barnhart, Paul F.
Barnwell Production Company
Bass, Perry R.
Bass, Perry R., Inc.
Earl G. Bateman
d/b/a Bateman Drilling Company
Beck Oil Company
Bel Oil Corporation
Belco Petroleum Corporation
Benedum Trees Oil Company
Benin Oil Company
Berkshire Oil Company
Bintliff, David C.
Birthright Oil Company
Bluebonet Gas Corporation
Bradco Oil and Gas Company
Bradco Properties Inc.
The British American Oil Producing Co.
Browder, Charles D., Jr.
Brown, George R.
Brown, Herman
Bruner, Arnold H., and Company
William T. Burton Industries Inc.
CRA Incorporated
Cabot Corporation
The California Co., A Division of Chevron Oil Company
Callery, F. A., Inc.
Callery Properties Inc.
Carter, Reese E.
Cenard Oil & Gas Company
Central Equipment Rentals, Inc.
Chance, R. L., Sr.
Cheyenne Oil Corp. of Delaware
Christie, Mitchell & Mitchell Co.
Circle Drilling Company Inc.

[1] All persons named herein and all parties on whose behalf such persons have filed FPC Gas Rate Schedules for sales in the Southern Louisiana Area are respondents, including their successors and assigns. See Part I-A for listing of company name changes .

Cities Service Company
Cities Service Oil Co.
Cities Service Petroleum Company
Cities Service Production Company
Clinton Oil Company
Coastal States Gas Producing Co.
Cocke, W. H.
Cockrell, E., Jr.
Cole, Howard S., Jr.
Colorado Oil & Gas Corp.
Columbian Fuel Corporation
Conover, William V.
Consolidated Gas Supply Corp.
Continental Inter-State Gas Co.
Continental Oil Company
Cordell, J. H.
Couba Oil Company
Courtney, E. A.
Cox, Edwin L.
Crow, David, Trustee
Crown Central Petroleum Corp.
Cunningham, James M.
Cyprus Oil Company
Dalton, W. F., Trustee
Damson Exploration Corp.

Damson Exploration Corp., Hutcheson, L. B. and Dirks, Wayne D. d/b/a Solatex Petroleum Co.
Davis Oil Comapny
Del Oil & Gas Corp. (Operator) Agent for Joe Grady S. Armstrong, *et al.*
Delta Drilling Company
Delta Gulf Drilling Company
Despot Incorporated
Despot, George J.
Diamond Shamrock Corporation
Dillon, Herbert L., Jr.
Dixilyn Drilling Corp.
Diversa Inc.
Dixon Management Corp.
Dorn & Miller Company
Dow Chemical Company
Drew Petroleum Inc.
Edgewater Oil Company Inc.
El Tres Petroleum Corp.
El Paso Natural Gas Company
Eason Oil Company
Elsbury, Joseph W., Jr.
Essex Royalty Corp.
Exchange Oil Company Limited
Exchange Oil and Gas Company
Falcon Seaboard Drilling Company
Felmont Oil Corp.
Fidelity Oil & Royalty Company
Fikes, Leland
Flaitz, J. M., & Mitchell, R. B.
F. O. Corp., The
Forest Oil Corporation
Frankel, J. R.
Frankel Oil and Gas Company
Franks, John
Franks Petroleum Incorporated
Freedom Minerals, Inc.
Freeport Oil Company
Gas Gathering Corporation
General American Oil Company of Texas
General Crude Oil Company
Geological, Geophysical Associates, Inc.
Getty Oil Company
Gilger, C. C.
Glasscock Chapham Incorporated
Glassell, Alfred C., Jr.
Goodrich, H. R.
Goodrich, Hugh
Goodrich, R. H.

Great American Minerals Company
Great Southern Oil and Gas Co. Inc.
Great Yellowstone Corporation
Grigsby, Jack W.
Gruy Management Service Co.
Gulf Interstate Oil Company
Gulf Oil Corporation
H-Tex Incorporated
Halbouty, Michel T.
Hamilton Brothers Oil Company
Hanna Mining Company
Harang, Jack F. and Johnson, Joseph A.
Harbor Oil Company, Inc.
H. L. Hawkins & H. L., Jr.
Hawthorne, Hugh A.
Helis Petroleum Corp.
Helis, Wm. G., Estate of
Henderson, J. Harry, Jr.
Herrington, Mrs. Louise H.
Hester, B. M.
Hibbert, R. E.
Highland Oil Company
Highland Resources Incorporated
Homa Oil and Gas Company
Homer, Joseph F. and Homer, Grace
Hubbard, R. E., Jr.
J. M. Huber Corporation
Hudson, E. J.
Hudson Gas & Oil Corp.
Roy M. Huffington, Inc.
Humble Gas Transmission Company
Humble Oil & Refining Co.
Hunt, H. L.
Hunt, Hassie, Trust
Hunt, Lamar
Hunt Industries
Hunt, Lyda, Margaret, Trusts
Hunt, Lyda, Caroline, Trusts
Hunt, Lyda, Herbert, Trusts
Hunt, Lyda Bunker, Trusts
Hunt, Lyda, Lamar Trusts
Hunt Oil Company

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Hunt, W. H.
Hunt, Wm. Herbert Trust Estate
Hurley Oil & Gas Company
Hurt Oil & Gas Corp.
Jameson, F. E., *et al.*
Johnston, C. N.
Johnston, Jack M.
Jones, Joseph M.
Jupiter Corporation
Kaplyn, T. Harry
Kellerman, R. E.
Kern County Land Company
Kerr-McGee Corp.
Kewanee Oil Company
Kilroy Properties, Inc.
King, A. P., Jr.
King Resources Company
Kleinpeter, T. W.
Jack E. Koch Oil Co. Inc.
LaCoastal Petroleum Corp.
Lake Washington Inc.
Lamson & Bennett, Inc.
Landa Oil Company
Langton, Claude M., Trustee
Lawrence Oil Incorporated
Levy, Nathan A., Jr.
Louisiana Land and Exploration Co.
Lyons and Logan
Lyons, C. H., Jr.
Lyons, C. H., Sr.
Lyons Petroleum
M. P. S. Production Co. Inc.
Magna Oil Corporation
McCain, M. F.

McCarter, W. B., Jr.
McCord, Charles T., Jr.
d/b/a McCord Oil Company
McCormick, Sanford E.
J. Ray McDermott Co. Inc.
McGhee, George C.
McIntyre, T. J.
McIntyre, T. J. d/b/a
McIntyre Oil Company
McKnight, W. L.,
d/b/a LaGorce Oil Co.
McLean, Harvey
McMoran Properties
Incorporated
McWilliams-Moffett Corporation
Maracaibo Oil Exploration Corp.
Marathon Oil Company
Main, Vernon J., Jr.
Marr, M. H.
Mayfield, M. L.
Mayroone, R. W., Jr.
d/b/a Riverside Oil Company
McWood Corporation
Mecom, John W.
Mecom, John W.
d/b/a Mecom Petroleum Co.
Metals Service Company
Midhurst Oil Corporation
Midwest Oil Corporation
Miller, Irwin
George Mitchell & Associates,
Inc.
Mobil Oil Corp.
Monsanto Company
Moore, Homer T.
Mosbacher, Robert
Mound Co.
Murphy Oil Corp.
Nesbitt, William J.
Newmont Oil Company
Newsham, John Chauncey
Nicklos Oil & Gas Co.
North Central Oil Corp.
O'Meara, M. P.
O'Meara, Robert W.
Occidental Petroleum Corp.
Ocean Drilling & Exploration
Co.
Offshore Exploration
Corporation
Offshore Operators Inc.
Ogden, Roger H. and
Schneider, George W., Jr.
Oil and Gas Futures Inc. Texas
Oil and Gas Property Mgmt, Inc.
Oil Participations Inc.
Owen, J. P.
Owen Production Company
Pan American Petroleum Corp.
Pano Tech Exploration Corp.
Pareti, John D.
Peltier, Harvey
Pel-Tex Petroleum Co. Inc.
Penton, E. Doyle, & Penton,
D. N., d/b/a Penton & Penton

Penton, Ruth I. and Penton,
D. N., d/b/a Penton & Penton
Petroleum Gas Producing Co.
Petroleum Inc.
Petroleum Property
Management, Inc.
Petroleum Offshore Leaseholds
Petroleum Leaseholds, Inc.
Phillips Petroleum Co.
Phillips, R. P.
Pioneer Oil & Gas Company, Inc.
Placid Oil Company
Plaquemines Oil and Gas Co.
Pray, Max
Prentice, Robert B.
Preston Oil Company, The
Proctor, Sterrett B.
Pubco Petroleum Corporation

Robichaux, D. J., Jr.
Rasberry, Elge
Rauch, Morris
Rault, Joseph M. Jr., Inc.
Rebstock & Reeves Drilling Co.
Recile, Sam J.
Rimrock Tidelands Inc.
River Corporation
Rowe, David A.
Royalite Oil Co. Inc.
Rutherford, P. R.
Rycade Oil Corp.
St. Helens Petroleum Corp.
Sabinol Corporation
Samedan Oil Corp.
San Jacinto Oil & Gas Co.
Sands, Caroline Hunt
Joseph E. Seagram & Sons d/b/a Texas Pacific Oil Co.
Secure Trusts
Sheldon, Joseph S., Jr.
Shell Oil Co.
Signal Oil and Gas Co.
Sinclair Oil & Gas Co.
Singer-Fleischaker Oil Co.
Sklar Producing Company Inc.
Skelly Oil Company
Sohio Petroleum Co.
South Shore Oil and Devel. Co.
South Texas Natural Gas Gath. Co.
Southdown Burmah Oil Company
Southeastern Public Service Co.
Southern Minerals Corporation
South Natural Gas Company Joint Venture
Southland Royalty Company
Southwest Gas Producing Co., Inc.
Southwest Resources, Inc.
State Exploration Company
Strautberg, A. T.
Stokes, Winston L.
Sun Oil Co.
Superior Oil Co., The
Sword Co.
Tamborello, Anthony J.
Tenneco Corporation
Tenneco Oil Company
Tennessee-Louisiana Oil Co.
Texaco Inc.
Tex-Star Oil and Gas Corp.
Texas City Refining Inc.
Texas Crude Oil Co.
Texas Crude Oil Incorporated
Texas Gas Exploration Corp.
Texas Gas Producing Company
Texas Gas Transmission Co.
Texas Gulf Producing Co.
Texas Gulf Sulfur Company
Texas Liberty Gas Corporation
Texas Liberty Oil Company
Texas National Petroleum Co.
Texas Oil and Gas Corp.
Texstar Corporation
Texas Petroleum Gas Company
Thompson, Craft
Toce, Paul M.
Trahan, J. C. Drilling Contractor, Inc.
Transocean Oil Incorporated
Tribune Oil Corporation
Trice Production Co.
The TXL Oil Corporation
Union Carbide Petroleum Corporation
Union Oil Co. of California

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Union Producing Co.
Union Texas Petroleum, Division of Allied Chemical Corp.
U.S. Oil of Louisiana Ltd.
Valley Gas Transmission Inc.
Viking Oil Corporation
Vincent and Welch Inc.
WSC Corporation
W. W. F. Oil Corp.
Walker, Weir

Walker, Willard E.
Walker, W. E.
Walker, W. E. & Meeker, J. R.
Walker, W. E. & Freedom Minerals, Inc.
Warren American Oil Company
Weaver, Curt
Webster, C. B.
Weiner, Ted
Whipple, W. J. N. and Stall, A. H. Incorporated
Whitaker, Douglas
Whitehall Oil Company, Inc.
Whitestone Petroleum Corp.
Wigwam Production Corp.
Williams Brothers Co.
J. E. Williams Incorporated
Wilson Exploration Company
Wolfe Oil and Gas Company
Woodfin, Gene M., Trustee
Woods Oil and Gas Company
Woods Petroleum Corp.
Wrightsman, Charles B.
Young, Marshall R.
Marshall R. Young Oil Co.
Zapata Offshore Co.

Opinion and Order

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PART I-A

NAME CHANGES

PREVIOUSLY	NOW
Aladdin Exploration Co., Inc.	Aladdin Production Co., Inc.
Alco Oil and Gas Corporation	Ladd Petroleum Corporation
Berkshire Oil Company	Continental Oil Company
British American Oil Producing Company	Gulf Oil Corporation
Bruner, Arnold H. and Company	Texas Gas Producing Company
Cities Service Petroleum Co.	Cities Service Oil Co.
Cities Service Production Co.	Cities Service Oil Co.
Columbian Fuel Corporation	Cities Service Oil Co.
Exchange Oil and Gas Company	Exchange Oil and Gas Corporation
Flaitz, J. M., and Mitchell,, R. B.	Amax Petroleum Corporation
F. O. Corporation, The	Singer-Fleischaker Oil Company
Frankel, J. R.	Continental Oil Company
Highland Oil Company	Highland Resources Incorporated
Koch, Jack E., Oil Company, Inc.	Bowling, Leslie
J. Ray McDermott Co., Inc.	Tranocean Oil Company, Inc.
Maracaibo Oil Exploration Corp.	Tribune Oil Corporation
Oil Participations, Inc.	Geode Petroleum, Inc.
Owen Production Company	General American Oil Company of Texas
Pan American Petroleum Corp.	Amoco Production Company

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PREVIOUSLY	NOW
Penton, E. Doyle, and Penton, D. N., d/b/a Penton & Penton	Penton, Ruth and Penton, D. N. d/b/a Penton & Penton
Petroleum Offishore Leaseholds	Texas Gas Exploration Corporation
Petroleum Leaseholds, Inc.	Texstar Corporation, The
Pray, Max	Atlantic Richfield Company
Preston Oil Company, The	Columbia Gas Development Corporation
Rault, Joseph M. Jr., Inc.	Atlantic Richfield Company
San Jacinto Oil and Gas Co.	Bintliff, D. C.
Sinclair Oil and Gas Co.	Atlantic Richfield Company
Sklar Producing Company, Inc.	Sklar & Phillips Oil Company
Southwest Resources, Inc.	El Tres Petroleum Corporation
Texas Gas Producing Company	Landa Oil Company
Texas Liberty Gas Corporation	Landa Oil Company
Texas National Petroleum Co.	Union Oil Co. of California
TXL Oil Corporation, The	Texaco, Inc.
Union Producing Company	Pennzoil Producing Company

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Part II

Respondent Pipeline Purchasers

American Louisiana Pipeline Company
Bluebonet Gas Corporation
Columbia Gulf Transmission Company
Consolidated Gas Supply Corporation
Florida Gas Transmission Company
Gas Gathering Corporation
Hope Natural Gas Corporation
Michigan Wisconsin Pipe Line Company
Natural Gas Pipeline Company of America
Plaquemines Oil and Gas Company
Sea Robin Pipeline Company
South Texas Natural Gas Gathering Company
Southern Natural Gas Company
Tennessee Gas Pipeline Company A Division of Tenneco, Inc.
Tennessee Gas Transmission Company
Texas Eastern Transmission Corporation
Texas Gas Transmission Company
Transcontinental Gas Pipe Line Corporation
Trunkline Gas Company
United Fuel Gas Company
United Gas Corporation
United Gas Pipe Line Company
Valley Gas Transmission Incorporated

Part III

Section 4(e) Dockets Consolidated

With the Initial Docket No. AR61-2 Proceedings

The Section 4(e) dockets still consolidated with the AR69-1, *et al.* proceeding are as follows.

Producers	Docket Nos.
Amerada Hess Corporation (Oper.) *et. al.*	RI62-505
American Petrofina Company of Texas (Oper.) *et. al.*	RI62-169
Austral Oil Company, Inc. (Oper.) *et. al.*	G-13842, G-16891, G-17797, G-19641, G-19642, G-19765, G-19830, RI61-179, RI62-93, RI63-94, RI62-99, RI62-360,
Austral Oil Company, Inc. (Oper.), Agent for Oil Participations, Inc.	G-13177, G-16515, G-18270, G-19913, RI61-137, RI61-175, RI62-94, RI62-99, RI62-360, RI62-484, RI63-154, RI63-155, RI64-223
Benedum Trees Oil Company (Oper.) *et. al.*	RI62-191
Brown, George R.	RI62-145
Cabot Corporation	RI62-208
The California Company, a Division of Chevron Oil Co.	G-14313, G-16682, G-19535, G-20346
Cenard Oil & Gas Company	RI61-28
Continental Oil Company	G-16701, G-17936, RI60-165, RI60-334, RI61-470
Continental Oil Company , (Oper.) *et. al.*	RI63-168
Conover, William V.	RI63-68
Crescent Oil & Gas Corp. and El Tres Petroleum Corporation	G-12439

Producers	Docket Nos.
Crow, David, Trustee	G-20083
Cunningham, James M. (Oper.) *et. al.*	RI60-232
Dalton, W. F., Trustee	G-14053, G-17527, G-20441, RI60-472
Dixon Management Corporation, Agent (Oper.) *et. al.*	RI61-552
F. O. Corporation, The	RI62-214
Forest Oil Corporation (Oper.) *et. al.*	G-16726, G-19939, G-19940, RI61-186, RI61-187, RI62-68, RI62-69, RI63-120, RI63-136
Gas Gathering Corporation	G-20118
General American Oil Company of Texas	G-19476, G-19875, G-19924, RI61-173, RI61-321, RI62-133, RI62-234, RI62-392, RI63-127, RI63-161, RI63-162
General Crude Oil Company	G-16727
Hawkins, H. L., and Hawkins, H. L., Jr.	G-16314
Herrington, Louise H., Mrs.	RI62-270
Hudson Gas & Oil Corporation and Continental Oil Corporation	RI60-211
Hunt, H. L.	RI62-228
Hunt, H. L. (Oper.) *et. al.*	G-13837, G-17163, G-20340, RI60-427
Hunt, T. L., *et. al.*	G-20071
Hunt Industries	G-13840, G-17162, G-20445, RI60-432
Hunt, W. H.	G-19930

Producers	Docket Nos.
Hassie Hunt Trust and The Preston Oil Company (Oper.) *et. al.*	RI62-227
Hurt Oil & Gas Corporation	RI61-299
Jameson, F. E., *et. al.*	G-18672
Kerr-McGee Corporation	G-16082, G-16697, G-17155, G-17882, G-19872, G-19914, RI60-452, RI61-191, RI61-514, RI62-62, RI62-378, RI63-158
Langton, Calude, M., Trustee	G-14054, G-17164, G-20456, RI60-428
Mayfield, M. L.	G-11615, G-16519, G-20064
McDermott, J. Ray & Co., Inc.	G-12158, RI62-421
Mecom, John W.	RI62-311
Midwest Oil Corp. (Oper.) *et. al.*	G-19912, RI60-182, RI61-251, RI62-119, RI63-116
Natural Gas and Oil Corporation	G-20239
Nicklos Oil & Gas Company, *et. al.*	G-11711
Occidental Petroleum Corporation	G-12303, G-17997, RI61-330
Owen, J. P. (Oper.) *et. al.*, and General American Oil Company of Texas (Oper.) *et. al.*	G-20555
Owen, J. P. (Oper.) *et. al.*, Owen Production Company (Operator), *et. al.* and General American Oil Company of Texas (Operator), *et. al.*	RI61-220

Producers	Docket Nos.
Pan American Petroleum Corp. (Oper.) *et. al.*	RI62-359, RI63-389
Penton, E. Doyle & D. N. d/b/a Penton & Penton (Oper.) *et. al.*	G-17800

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Petroleum, Inc. (Oper.) *et al.*	G-20276, RI61-295, RI62-256, RI63-255
Phillips Petroleum Company	G-11991, G-14260, G-16600, G-16712, G-16083, G-17267, G-17740, G-17920, G-20013
Phillips Petroleum Co. (Oper.) *et. al.*	G-18414
Phillips Petroleum Co. and J. C. Trahan Drilling Contractor, Inc.	G-17156
Placid Oil Company	RI62-211, RI62-257
Placid Oil Company, *et. al.*	G-13180, RI62-211, RI62-257
Preston Oil Company	RI63-101
Rauch, Morris, *et. al.*	G-4334
Rebstock & Reeves Drilling Company (Oper.) *et. al.*	G-17738, G-19941, RI61-232, RI62-181
Rutherford, P. R.	G-17928
Samedan Oil Corporation (Oper.) *et. al.*	RI61-313
Secure Trusts	G-13839, G-17161, G-20455, RI60-429, RI62-226
Southwest Gas Producing Company, Inc.	G-18100
Sunnyland Contracting Company	G-19896
Superior Oil Company, The (A Nevada Corporation)	G-19823, G-17707, RI62-278

Producers	Docket Nos.
Superior Oil Company, The (A Nevada Corporation) (Oper.) *et. al.*	G-11845, G-17989, G-20577, RI63-37
Tenneco Oil Company	RI63-187
Tenneco Oil Company and Continental Oil Company	RI62-506
Tesoro Petroleum Corporation	RI62-358

Texaco Inc.	RI61-419, RI62-309
J. C. Trahan Drilling Contractor, Inc.	RI61-557, RI62-103, RI62-277
J. C. Trahan Drilling Contractor, Inc. (Oper.) *et. al.*	RI61-315, RI61-550
Tribune Oil Corporation	G-6279, G-13032
Trice Production Company	G-18516
Union Oil Company of California	G-13438, G-16602, G-16021, G-19006, G-19609, RI60-450, RI61-80, RI62-43, RI63-117, RI63-159, RI63-160
U.S. Oil of Louisiana, Inc.	G-19874
Vincent & Welch, Inc. (Oper.) *et. al.*	G-19261
Walker, Willard E.	G-18099
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Weiner, Ted (Oper.) *et. al.*	G-17993, G-19901
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Part IV

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Amerada Hess. Corp. (Oper.) *et. al.*	RI65-553, RI67-297
Amerada Hess Corp. (Oper.) *et. al.* and Ashland Oil Inc. and Clarke Oil Field Service, Inc.	RI65-553
Amerada Hess Corporation and Paul E. Klobendanz	RI68-119
Amerada Hess Corp. and Paul E. Klobendanz and Sun Oil Co. (DX Div.)	RI68-120
Amerada Hess Corp. (Oper.) *et. al.* and Samedam Oil Corp.	RI68-120
American Petrofina Co. of Texas	RI65-609
American Petrofina Co. of Texas (Oper.) *et. al.*	RI68-151
Amoco Production Company	RI64-234, RI70-1117, RI70-1414, RI70-1781, RI71-971, RI71-1033
Amoco Production Company, *et. al.*	RI71-950
Anadarko Production Company	RI64-234, RI65-242
An-Son Corporation	RI71-710
Ashland Oil, Inc.	RI71-850

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Atlantic Richfield Company	RI64-809, RI66-119, RI66-165, RI66-346, RI68-37, RI68-70, RI68-90, RI68-91, RI68-108, RI68-271, RI68-286, RI68-304, RI68-703, RI69-80, RI69-112, RI70-166, RI70-261, RI70-349, RI70-1485, RI70-1532, RI70-1552, RI71-98, RI71-127, RI71-396, RI71-412, RI71-523, RI71-818, RI71-874

Atlantic Richfield Company, *et. al.*	RI68-287, RI71-958
Atlantic Richfield Company (Oper.) *et. al.*	RI66-394, RI68-91
Atlantic Richfield Co. and Graham Michaelis Drilling Co.	RI68-90
Atlantic Richfield Co. and Miss. Tex Oil Products	RI66-345
Atlantic Richfield Co. (Oper.) *et. al.* and Petroleum Management and Aiken Bros. Corp.	RI68-91
Aquitane Oil Corporation	RI71-317, RI71-759, RI71-814
Austral Oil Company, Inc.	RI65-475
Austral Oil Company (Oper.) *et. al.*	RI68-284
Austral Oil Company, Inc. Agent for Oil Participations, Inc.	RI71-836
Dr. Paul J. Azar	RI71-875
The Ballard & Cordell Corp.	RI71-876
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Belco Petroleum Corp.	RI71-686
Bel Oil Corporation	RI71-673
Bel Oil Corporation, *et. al.*	RI71-673
Birthright Oil Company	RI71-537
Burman Oil Development, Inc.	RI66-159, RI66-196, RI71-449, RI71-673
Cabot Corporation	RI71-318, RI71-839
Cabot Corporation (SW)	RI71-551
The California Company	RI70-1194, RI71-327, RI71-561, RI71-688, RI71-925, RI71-965

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The California Company, a Division of Chevron Oil Company	RI70-1415, RI70-1713, RI71-326, RI71-688
The California Company, a Division of Chevron Oil Company, *et. al.*	RI71-748
Callery Properties, *et. al.*	RI65-562
F. A. Callery, Inc. *et. al.*	RI65-561, RI65-564
Francis A. Callery, *et. al.*	RI65-563
Circle Drilling Company, Inc.	RI71-544
Cities Service Oil Company	RI64-788, RI70-105, RI70-125, RI70-168, RI70-242, RI70-875, RI70-1427, RI70-1447, RI71-128, RI71-130, RI71-328, RI71-361, RI71-395, RI71-524, RI71-641, RI71-749, RI71-844, RI71-976
Cities Service Oil Company, *et. al.*	RI71-641
Clark Oil Producing Company	RI71-917
Coastal States Gas Producing Company	RI65-613, RI71-539

Producers	Docket Nos.
E. Cockrell, Jr. (Oper.) *et. al.*	RI67-298
Columbia Gas Development Corporation	RI64-318, RI67-385, RI69-860, RI70-112, RI70-170, RI70-913
Columbian Fuel Corp. (Oper.) *et. al.*	RI64-268, RI65-161
Con Chemical Company	RI71-847
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Continental Oil Company	RI64-748, RI65-525, RI68-82, RI68-525, RI68-691, RI70-111, RI70-144, RI70-263, RI70-1122, RI70-1446, RI71-97, RI71-111, RI71-131, RI71-134, RI71-169, RI71-274, RI71-314, RI71-325, RI71-331, RI71-362, RI71-395, RI71-399, RI71-474, RI71-552, RI71-1015, RI71-1035

Continental Oil Company, *et. al.*	RI71-802, RI71-972, RI71-1031
Continental Oil Company OEA	RI65-627
Continental Oil Co. (Oper.) *et. al.* & Clinton Oil Co. (Oper.) *et. al.*	RI65-231
J. H. Cordell, *et. al.*	RI67-298, RI71-877
Edwin L. Cox	RI71-525
CRA, Int'l, Ltd.	RI71-540
Crown Central Petr. Corp.	RI71-660
Crownwell Oil Company, Inc. and Shell Oil Company	RI65-361
Davis Oil Company, *et. al.*	RI71-906
Dixilyn Corporation	RI70-226, RI70-1384, RI71-954, RI71-1001

Producers	Docket Nos.
Dorn and Miller Company	RI65-218
William G. Dorsey III	RI71-705
Emerald Oil Company	RI71-689
Essex Royalty Corporation	RI71-397, RI71-546
Exchange Oil & Gas Corporation, *et. al.*	RI71-528
Falcon Seaboard Drilling Co., *et. al.*	RI67-115, RI71-963
Felmont Oil Corporation	RI71-385, RI71-386, RI71-550, RI71-841
Forest Oil Corp.	RI65-217, RI68-35, RI70-169, RI70-189, RI70-874
Forest Oil Corporation (Oper.) *et. al.*	RI65-155, RI65-216, RI68-41
Franks Petroleum, Inc.	RI65-475, RI71-527
The Fundamental Oil Corp. *et. al.*	RI71-753
Gas Gathering Corporation	RI65-647, RI66-262, RI68-135, RI71-806, RI71-890

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General American Oil Co. of Texas	RI64-202, RI64-317, RI64-330, RI64-431, RI64-450, RI65-281, RI65-405, RI66-202, RI66-214, RI66-282, RI66-314, RI68-216, RI71-831, RI71-890
General American Oil Co. of Texas (Oper.) *et. al.*	RI64-316, RI65-282, RI67-209
General American Oil Co. of Texas and May Petroleum, Inc.	RI66-314
General Crude Oil Company	RI64-259, RI70-265, RI70-705

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Getty Oil Company	RI64-762, RI65-15, RI65-456, RI66-146, RI66-147, RI67-66, RI67-73, RI67-363, RI68-150, RI68-710, RI70-142, RI70-262, RI70-1182, RI70-1425, RI71-92, RI71-135, RI71-226, RI71-329, RI71-363, RI71-398, RI71-514, RI71-659, RI71-750, RI71-891, RI71-977
Glasscock Chapman, Inc. *et. al.*	RI69-40
Gruy Management Service Co. Agent for Cador Petr. Corp., *et. al.*	RI65-243, RI68-381
Gulf Oil Corp.	RI64-662, RI65-194, RI65-599, RI65-600, RI68-562, RI68-689, RI68-690, RI69-78, RI70-124, RI70-1357, RI70-1425, RI70-1750, RI71-315
Gulf Oil Corp. (Oper.) *et. al.*	RI65-600, RI68-236, RI68-690, RI70-1533
Gulf Oil Corp. and Ashland, Inc. and Clark Oil Field Services, Inc.	RI65-599
Gulf Oil Corp. and Thomas A. Duggan, *et. al.*	RI65-599, RI65-600
Halbouty, Michael T.	RI71-810

Hamilton Brothers Oil Company	RI70-304, RI71-2
Hawkins, H. L. and Hawkins, H. L., Jr.	RI68-197
Highland Resources, Inc.	RI70-260, RI70-1704
J. M. Huber Corp.	RI70-1413, RI71-536, RI71-966
Roy M. Huffington, Inc.	RI71-1034

Producers	Docket Nos.
Humble Oil and Refining Company	RI64-236, RI64-237, RI68-2, RI68-5, RI68-603, RI70-104, RI70-879, RI70-914, RI71-751, RI71-815, RI71-1012
Humble Oil and Refining Co., and Burk Gas Corporation	RI68-2
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Hassie Hunt Trust (Oper.), *et. al.*	RI67-425
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Hunt Oil Company	RI66-127, RI66-128, RI67-246, RI67-423, RI70-187, RI70-1681, RI71-662, RI71-898

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Hunt Oil Co. (Oper.), *et. al.*	RI67-11
Hurt Oil and Gas Corp.	RI64-429
Hurt Oil and Gas Corp., *et. al.*	RI65-358
Inexco Oil Company	RI71-959
Kenmore Oil Corp., Inc. *et. al.*	RI71-623
Kerr-McGee Corp.	RI64-261, RI68-523, RI70-1389, RI71-90, RI71-91, RI71-840, RI71-903, RI71-909, RI71-997, RI71-1046

Producers	Docket Nos.
Kerr-McGee Corp. (Oper.) *et. al.*	RI66-299
Kerr-McGee Corp. *et. al.*	RI71-1045
Kewanee Oil Company	RI70-260, RI71-1753, RI71-547
King, A. P. Jr. (Oper.) *et. al.* and Kewanee Oil Co. (Oper.) *et. al.*	RI67-307
Lance Resources Inc.	RI71-882
Louisiana Land and Exploration Co., The	RI71-411
Lyon and Logan (Oper.) *et. al.*	RI71-526
Mayfield, M. L.	RI65-593
Marathon Oil Company	RI66-429, RI70-915
Marathon Oil Company (Oper.), *et. al.*	RI65-625, RI68-217, RI68-637
McCain, F. M.	RI71-535
McLean, Harvey	RI68-626
Midwest Oil Corp.	RI70-167, RI71-545, RI71-947, RI71-1385
Midwest Oil Corp. (Oper.) *et. al.*	RI65-283

Mobil Oil Corporation	RI67-201, RI67-272, RI68-39, RI68-203, RI68-493, RI68-622, RI70-165, RI70-727, RI70-1039, RI70-1361, RI70-1364, RI70-1426, RI70-1752, RI71-132, RI71-227, RI71-663, RI71-745, RI71-803
Mobil Oil Corporation (Oper.) and Butler Gas and Oil Co. and Sun Oil Co. and Aikman Bros. Corp.	RI67-348

Producers	Docket Nos.
Mobil Oil Corp. and James A. Wood, Trustee (Oper.) *et. al.* and Clinton Oil Co. and John Crain and Malcolm Deisenroth, Jr.	RI67-272
Newmont Oil Company	RI68-533, RI68-709, RI70-1534, RI71-276, RI71-313, RI71-364, RI71-1047
Occidental Petroleum Corp.	RI70-1565
Ocean Drilling and Exploration Company	RI71-357
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Ogden, Roger H. and Schneider, George W., Jr.	RI71-892
O'Meara, Robert W. (Oper.) *et. al.*	RI65-535
Pano Tech Exploration Corp.	RI66-205
Patrick Petroleum Co.	RI71-563
Penzoil Producing Co.	RI70-1513, RI70-1514, RI70-1559, RI70-1560, RI70-1611, RI71-96, RI71-275, RI71-475, RI71-812, RI71-817, RI71-913
Penzoil Producing Co. *et. al.*	RI71-843, RI71-957
Petroleum, Inc.	RI64-430
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Placid Oil Company	RI65-357, RI68-269, RI70-188, RI70-1679, RI71-658
Placid Oil Company (Oper.) *et. al.*	RI68-56, RI68-57, RI69-596, RI69-597
Placid Oil Company and Phillips Petroleum Company and Bachus Oil Company and Burk Gas Corp.	RI67-350

Producers	Docket Nos.
Prentice, Robert (Oper.) *et. al.*	RI67-41, RI67-235
Royalite Oil Co. Inc.	RI64-679
Rutherford, P. R. *et. al.*	RI71-904
Samedan Oil Corp. (Oper.) *et. al.*	RI64-615
Secure Trust	RI67-197
Shell Oil Company	RI65-361, RI65-475, RI65-652, RI66-27, RI66-92, RI67-74, RI67-312, RI68-38, RI69-362, RI69-763, RI70-126, RI70-504, RI70-820, RI70-876, RI70-1326, RI70-1430, RI70-1448, RI70-1706, RI71-173, RI71-268, RI71-675
Shell Oil Company and R. E. Hubbard, Jr. (Oper.) *et. al.*	RI65-317
Signal Oil and Gas Co. OEA	RI70-1181, RI70-1591
Sinclair Oil and Gas Co. (Oper.) *et. al.*	RI68-287
Singer-Fleischaker Oil Company	RI67-200
Skelly Oil Company	RI70-228, RI71-752
Sohio Petroleum Company	RI66-276, RI71-548
Sohio Petroleum Company (Oper.) *et. al.*	RI66-278
Southeastern Public Service Company	RI63-361
Southern Natural Gas Company	RI71-384, RI71-969

Southwest Gas Producing Co., Inc.	RI64-262, RI67-214
Southwest Gas Producing Co., Inc. *et. al.*	RI68-152

Producers	Docket Nos.
Suburban Propane Gas Corp.	RI71-711, RI71-746, RI71-800
Sun Oil Company	RI64-203, RI64-448, RI65-238, RI68-100, RI68-405, RI68-424, RI68-538, RI71-316, RI71-549, RI71-813, RI71-855, RI71-888, RI71-930
Sun Oil Company *et. al.*	RI71-974
Sun Oil Company (Oper.) *et. al.*	RI68-101, RI68-545
Sun Oil Company DX Division	RI68-400, RI68-424, RI70-143
Sun Oil Company and Joseph B. Gould	RI68-100
Sunray DX Oil Company	RI68-601
Sunray DX Oil Company (Oper.) *et. al.*	RI68-431
Superior Oil Company, The	RI64-715, RI66-367, RI66-389, RI67-153, RI71-952, RI71-960
Superior Oil Company, The (Oper.) *et. al.*	RI65-571, RI68-621
Tenneco, Inc.	RI70-1511
Texaco Inc.	RI64-264, RI66-383, RI67-208, RI70-281, RI71-269, RI71-809
Texaco Inc. (Oper.)	RI64-266, RI68-653
Texaco Inc. (Oper.) *et. al.*	RI64-265, RI66-382
Texas Gas Exploration Corp.	RI69-859, RI70-70, RI70-1072, RI71-562
Texas Gas Exploration Corp. *et. al.*	RI71-889
Texas Gulf Sulfur Co. *et. al.*	RI71-642

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Texas Pacific Oil Co., Inc.	RI64-449
Three S and T Oil Company	RI71-687

Producers	Docket Nos.
Toce, Paul M. OEA	RI71-529
J. C. Trahan Drilling Contractors, Inc.	RI71-541
Transocean Oil Inc.	RI68-438
Transocean Oil Inc. *et. al.*	RI70-227, RI70-1751
Trice Production Company	RI71-845, RI71-846
Trice Production Company *et. al.*	RI71-842
Union Carbide Petroleum, Corp.	RI70-229, RI71-133
Union Oil Company of California	RI64-238, RI68-40, RI68-104, RI68-330, RI68-572, RI69-858, RI70-71, RI70-103, RI70-127, RI70-1428, RI71-174, RI71-330, RI71-534, RI71-709, RI71-896, RI71-902, RI71-953, RI71-998
Union Oil Company of California (Oper.) *et. al.*	RI67-84
Union Oil Company of California and Ashland Oil, Inc. and May Petroleum, Inc.	RI66-316
Union Oil Company of California and Coastal States Gas Producing Company (Oper.) *et. al.*	RI67-83
Union Producing Company	RI69-406, RI69-407, RI70-1362, RI70-1383
Union Texas Petroleum	RI68-305, RI68-306
Wall, Earl E.	RI71-622
Warall J. N. Whipple, *et. al.*	RI71-543
Wilson Exploration Company	RI71-951

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Part V

Pending Section 7(c) Certificate Applications

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Aladdin Exploration Company, Inc.	CI61-1564
Aladdin Oil Company, Inc.	CI65-224
Amerada Hess Corporation	CI61-1246, CI62-342, CI67-637, CI67-1649, CI68-252, CI68-577, CI69-534, CI70-467.
American Natural Gas Production Co.	CI64-702
American Trading and Production Corp. (OEA)	CI68-27
Amoco Production Company	CI60-777, CI62-724, CI64-304, CI65-424, CI65-524, CI66-769, CI67-98, CI67-392, CI67-541, CI67-840, CI67-1654, CI68-539, CI68-573, CI68-1233, CI68-1421, CI69-35, CI69-172, CI69-181, CI69-183, CI69-184, CI69-231, CI69-491, CI69-529, CI69-608, CI70-453, CI70-529, CI70-906, CI70-960, CI71-421, CI71-646.
Anadarko Production Company	CI68-9
Annco Petroleum Company, Inc. (Oper.), *et. al.*	G-3270
An-Son Corporation (OEA)	CI63-1116
Apache Corporation (Oper.), *et. al.*	CI67-1799
Aquitaine Oil Corporation	CI69-674, CI70-656.
Arnold, Isaac	CI66-427

Producers	Docket Nos.
Atlantic Richfield Company	G-10143, G-20020, CI66-422, CI66-494, CI67-868, CI67-1208, CI67-1599, CI68-121, CI68-195, CI68-196, CI68-197, CI68-667, CI68-1058, CI68-1321, CI68-1352, CI69-68, CI69-461, CI69-466, CI69-662, CI69-794, CI70-635, CI70-651, CI70-1022, CI70-1067.
Austral Oil Company, Inc. (Oper.), *et. al.*	CI67-1519, CI67-1650, CI67-1651, CI68-234.
Azar, Dr. Paul J.	CI69-518
Aztec Oil and Gas Company	CI65-727

Ballard & Cordell Corporation, The	CI68-202, CI70-673, CI70-789.
Belco Petroleum Corp. (Oper.), *et. al.*	CI69-91
Bintliff, David C. (Oper.), *et. al.*	CI68-286, CI68-739, CI69-637.
Birthright Oil Co.	CI67-1440, CI71-177.
Bowling, Leslie (Oper.), *et. al.*	CI68-1217
Bradco Oil & Gas Company	CI70-626
Bradco Oil & Gas Co. (Oper.), *et. al.*	CI68-693
Brown, George R.	CI65-803, CI67-186.
Burmah Oil Development, Inc. (Oper.), *et. al.*	CI69-671
Cabot Corporation	CI67-1060, CI68-1085, CI68-1087, CI69-675, CI69-919, CI71-346.
California Co., A Division of Chevron Oil Company	CI67-1772, CI67-1822, CI68-1241, CI68-1301, CI68-1822, CI69-152, CI70-680.
Callery Properties, Inc.	CI65-7

Producers	Docket Nos.
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Cities Service Oil Company	G-10139, CI67-864, CI67-1159, CI68-1322, CI68-1443, CI69-57, CI 69-443, CI69-444, CI69-806, CI70-598, CI70-660, CI70-1008, CI70-1080, CI71-237.
Clinton Oil Company	CI68-46, CI69-363.
Coastal States Gas Producing Co.	CI67-353, CI67-643, CI68-1320, CI70-581.
Columbia Gas Development Corporation	CI67-63, CI68-1429.
Continental Interstate Gas Co.	CI69-33
Continental Oil Company	G-10122, G-11024, G-19838, CI62-1504, CI63-1319, CI65-812, CI67-861, CI68-302, CI69-62, CI69-745, CI70-605, CI70-719, CI70-1002, CI70-1075.
Courtney, E. A. (Oper.), *et. al.*	CI68-158

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Cox, Edwin L. (Oper.), *et. al.*	CI67-487, CI68-944, CI68-1180, CI70-1123.
Damson Exploration Funds, Inc.	CI70-588
Davis Oil Company	CI70-946, CI70-949.
Davis Oil Co. (Oper.), *et. al.*	CI70-946
Diamond Shamrock Corporation	CI69-25
Dixilyn Drilling Corporation	CI70-368
Elsbury, Joe W., Jr.	CI69-493
Emerald Oil Co. (Oper.), *et. al.*	CI70-1082
Energy Corporation of America	CI70-769, CI70-948.

Producers	Docket Nos.
Equipment, Inc.	CI69-768
Essex Royalty Corporation	CI69-927
Exchange Oil & Gas Company	CI64-232, CI66-601, CI67-219, CI67-805, CI67-1364, CI68-945, CI68-1390, CI68-1397, CI68-1430, CI69-414, CI69-840, CI70-499, CI70-620.
Exchange Oil & Gas Co. (Oper.), *et. al.*	CI66-601, CI67-219, CI67-805, CI67-1364, CI68-945, CI68-1397, CI68-1430, CI69-414, CI69-838, CI70-314, CI70-620.
Felmont Oil Corporation	CI67-1077, CI68-1099, CI69-673, CI69-918, CI71-355.
Forest Oil Corporation	CI68-1005, CI68-1399, CI69-48.
Freeport Oil Company, d/b/a Freeport Sulphur Company	CI69-225, CI69-255
General American Oil Co. of Texas	CI63-1309, CI63-1399, CI67-1608, CI68-666, CI68-862, CI70-478.
General American Oil Co. of Texas (Oper.) *et. al.*	CI64-364, CI64-465, CI65-343, CI66-190, CI67-179, CI68-607.
General Crude Oil Company	CI67-1604, CI68-950.

Getty Oil Company	G-10146, G-19719, CI66-424, CI67-862, CI68-1306, CI69-44, CI69-441, CI69-442, CI69-465, CI69-754, CI70-632, CI70-649, CI70-990, CI70-1079.
Goodrich, Hugh, *et. al.*	CI68-1436
Great Southern Oil and Gas Co. (Oper.), *et. al.*	CI68-1132
Gulf Oil Corporation	CI61-1630, CI64-464, CI66-310, CI66-332, CI66-453, CI67-630, CI68-65, CI68-1400, CI68-1425, CI70-550.

Procedures	Docket Nos.
Halbouty, Michael T.	CI69-150
Hamilton Brothers Oil Company	CI68-958
Haring, Jack F. and Johnson, Joseph A. C.	CI67-1817
Hawkins, H. L. and Hawkins, H. L. Jr.	CI68-606, CI68-783.
Hawthorne, Hugh A. (Oper.), *et. al.*	CI68-540, CI69-356.
Highland Resources, Inc.	CI68-917
Homa Oil and Gas Company	CI66-561
Hope Natural Gas Company	CI61-152
H-Tex, Inc.	CI67-863
J. M. Huber Corporation	CI67-1703, CI69-724.
Roy M. Huffington, Inc. (Oper.), *et. al.*	CI67-201, CI68-10, CI68-510.
Humble Oil and Refining Company	G-18714, CI64-1119, CI66-385, CI66-416, CI67-262, CI67-1762, CI68-134, CI68-536, CI68-1135, CI68-1357, CI68-1394, CI69-147, CI69-502, CI70-874, CI70-930, CI70-1111, CI71-263.
Hunt, Hassie Trust	CI65-862, CI67-138, CI69-722.
Hunt, H. L.	CI67-1518
Hunt Industries	CI66-355, CI68-928.
Hunt, Lamar	CI67-1203

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Hunt Oil Company	CI66-352, CI68-929, CI69-727.
Hunt Oil Co. (Oper.), *et. al.*	CI64-582
Imperial-American Management Co. (Oper.), *et. al.*	CI69-928

Procedures	Docket Nos.
Kellerman, R. E.	G-18136
Kenmore Oil Company, Inc.	G-18963
Kerr-McGee Corporation	CI66-143, CI67-1081, CI67-1533, CI67-1594, CI68-1086, CI68-1290, CI68-1339, CI69-669, CI69-884, CI71-317.
Kern County Land Company	CI66-586, CI68-1448.
King Resources Company	CI70-104, CI70-686.
Kewanee Oil Co. (Oper.), *et. al.*	CI67-1409, CI68-2, CI68-968.
Kilroy Properties, Inc.	CI67-1701
Ladd Petroleum Corp. (Oper.), *et. al.*	CI66-1243
Lake Washington, Inc., (Oper.), *et. al.*	CI68-538
The Louisiana Land and Exploration Co.	CI67-458, CI67-539, CI70-565, CI70-566, CI70-1102.
Lyons Petroleum	CI67-1024, CI70-712.
Lyons Petroleum (Oper.), *et. al.*	CI67-1565, CI68-1314.
McCarter, W. B. Jr., (Oper.), *et. al.*	CI68-934
McCord, Charles T. Jr., d/b/a McCord Oil Company	CI68-992
McCormick, Sanford E.	CI68-906
McCormick, Sanford E., *et. al.*	CI70-1057
McIntyre, T. J.	CI69-569
McMoran Properties, Inc.	CI68-1391
Marr, M. H.	CI67-1606

Mayronner, R. W. Jr., d/b/a Riverside Oil Company	CI66-88

Procedures	Docket Nos.
Midwest Oil Corporation	CI64-224, CI68-275, CI68-1227, CI70-373.
Mobil Oil Corporation	G-13827, CI61-1640, CI65-833, CI66-269, CI67-654, CI67-1624, CI68-155, CI68-1418, CI69-143, CI70-922, CI71-220.
Mobley and Davis 1968 (Oper.), Agent for Imperial-American Management Co., *et. al.*	CI69-1128
Monsanto Company	G-14874
Mosbacher, Robert	CI66-421
MPS Producing Company	CI70-784
Murphy Oil Corporation	CI70-727
Natural Resources Corporation	CI71-820
Nesbitt, William J., *et. al.*	CI68-83
Newmont Oil Company	G-13948, CI65-838, CI67-975, CI68-307, CI68-692.
North Central Oil Corporation	CI68-1047
Occidental Petroleum Corporation	CI67-780, CI70-564.
Ocean Drilling and Exploration Co.	CI67-802, CI68-1406, CI69-670.
Ocean Drilling and Exploration Co., *et. al.*	CI69-670, CI70-913.
The Offshore Company	CI69-232
Offshore Exploration Corporation	CI69-694
Offshore Exploration Corporation, (Oper.), *et. al.*	CI68-1171, CI69-165.
Ogden, Robert H. and Schneider, George W. Jr.	CI69-521

Procedures	Docket Nos.
Owen Oil Co., Inc. (Oper.), *et. al.*	CI67-1651
Owen, J. P.	CI62-538
Owen, J. P., (Oper.), *et. al.*	CI67-1602, CI68-308.

Pennzoil Producing Company	CI66-447, CI67-221, CI67-1768, CI68-914, CI69-256, CI69-355.
Pennzoil Producing Co. (Oper.), *et. al.*	CI68-18
Phillips Petroleum Company	CI66-34, CI66-373, CI67-1161, CI67-1644, CI68-815, CI69-210, CI71-48.
Placid Oil Company	CI66-281, CI66-1210, CI68-936, CI71-399.
Prentice, Robert B.	CI67-1605
The Preston Oil Company	CI62-1209, CI68-1006, CI69-252.
Pubco Petroleum Corporation	CI68-1098, CI68-1452.
Rowe, David A.	CI69-32
Rutherford, P. R., *et. al.*	CI68-1337
Samedan Oil Corporation	CI69-496, CI69,644, CI70-702.
Sands, Caroline Hunt & Loyd B. Sands	CI67-1190
Shell Oil Company	CI61-104, CI66-439, CI67-808, CI68-91, CI68-230, CI68-1146, CI68-1211, CI68-1374, CI69-242, CI69-266, CI69-293, CI69-690.
Shell Oil Company, (Oper.), *et. al.*	I66-438, CI66-443, CI66-565, CI68-230.
Shenandoah Oil Corporation	CI70-741
Signal Oil and Gas Company, (Oper.), *et. al.*	CI68-639
Singer-Fleischaker Oil Co., Inc.	CI67-1692

Procedures	Docket Nos.
Skelly Oil Company	CI68-301, CI171-258.
Sklar Producing Company, Inc.	CI68-1162
Sohio Petroleum	CI65-718, CI66-44, CI66-193, CI67-19, CI68-226, CI70-750.
The South Coast Corporation	CI64-461
Suburban Propane Gas	CI71-77

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Sun Oil Company	CI66-1130, CI67-1609, CI68-201, CI68-527, CI68-1074, CI69-548, CI69-595, CI69-672, CI70-657, CI70-729, CI71-358.
Sun Oil Co., DX Division, (Oper.), *et. al.*	CI66-172, CI66-418, CI66-419, CI67-230, CI68-1111.
The Superior Oil Company	G-16380, CI61-167, CI67-1209, CI67-1360, CI67-1779, CI68-173, CI68-513, CI68-1091, CI68-1100, CI68-1101, CI68-1202, CI68-1409, CI71-16, CI71-498.
Tenneco Oil Company	CI65-127, CI68-1022, CI68-1449.
Tenneco Oil Company, (Oper.), *et. al.*	CI66-425
Tennessee Gas Supply Company	CI68-1346
Terra Resources, Inc,	G-11243, CI60-645, CI66-378, CI69-596.
Texaco Incorporated	CI64-502, CI64-582, CI65-20, CI66-440, CI66-484, CI66-1227, CI67-26, CI67-166, CI67-505, CI67-1271, CI67-1297, CI67-1349, CI67-1638, CI67-1640, CI68-1152, CI68-1208, CI69-146, CI69-259, CI69-319, CI69-564, CI71-223.
Texaco Incorporated, (Oper.), *et. al.*	CI66-1263

Procedures	Docket Nos.
Texas City Refining, Inc., (Oper.), *et. al.*	CI68-1258
Texas Crude Oil Company	CI67-1064, CI68-176, CI69-468.
Texas Gas Exploration Corporation	CI68-1115, CI68-1438.
Texas Pacific Oil Company, Inc.	CI68-800, CI71-262.
Toce, Paul M.	CI69-492, CI70-666.
Trahan, J. C., Drilling Contractor, Inc.	CI69-432
Trans Ocean Oil, Inc.	CI68-941, CI70-54.
Tribal Oil Company, (Oper.), *et. al.*	CI71-131
Union Carbide Petroleum Corp.	CI68-979
Union Oil Company of California	CI64-233, CI65-349, CI65-436, CI65-482, CI66-435, CI68-611, CI68-776, CI68-1003, CI68-1071, CI69-327, CI69-355, CI69-446, CI69-562, CI69-568, CI69-582.

Union Texas Petroleum, a Division of Allied Chemicals Corporation	CI67-1483
U. S. Oil of Louisiana, Inc., (Oper.), *et. al.*	CI66-1303
U. S. Oil of Louisiana, Ltd.	CI64-365
Viking Oil Corporation	CI67-1256
Warren American Oil Company	CI67-448
Weiner, Ted, (Oper.), *et. al.*	CI64-230, CI69-198.
Whipple, and Stail, A. H., Inc.	CI67-825
Whitestone Petroleum Corp., (Oper.), *et. al.*	CI67-1826, CI68-27.
Williams, J. E., Inc .	CI69-282
Woods Petroleum Corporation	CI69-223

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APPENDIX C

RATE SCHEDULE, RATE CHANGE AND QUALITY STATEMENT

1. PRODUCERS NAME AND RATE SCHEDULE NO.	2. PURCHASER
3A. APPLICABLE SECTION 4(e) OR 7(c) DOCKET NO.(s)	3B. AREA RATE DOCKET NO. (IF ANY)

4. DATE(s) OF CONTRACT, AMENDMENT OR DISCOVERY 1/

	Contract	Amend.	New Res. Discovery	Date
A.	☐	☐	☐	Prior to _____
B.	☐	☐	☐	On & After _____
C.	☐	☐	☐	

5. VOLUME @ 60° F AND _____ PSIA
A. _____ Mcf
(For latest available 12 months volume estimated if necessary)
B. Approx. % Gas Well Gas _____

6A. FIELD OR PLANT (NAME, STATE AND COUNTY, OR OFFSHORE AREA AND BLOCK NO.)

6B. INDICATE IF PRODUCTION FROM DISPUTED ZONE. ☐

7. GAS QUALITY, DELIVERY CONDITIONS AND REDUCTION FOR SUB-STANDARD GAS

		Content	Amount Reduction ¢/Mcf
A. IMPURITIES 2/	a. Hydrogen Sulphide (gr./100 c.f.)		
	b. Total Sulphur. (gr./100 c.f.)		
	c. Carbon Dioxide (%)		
	d. Water (lbs./Mcf)		
	e. Other (Kind & Amount)		
	f. Total Reduction for Impurities		
B. Delivery Pressure 2/	a. Actual Delivery Pressure (Psig)		
	b. Pressure Available at Point of Delivery (Psig)		
	c. Reduction for Sub-Standard Pressure (¢/Mcf)		
C. Delivery Point	a. Actual Point at which Gas is first Delivered to Purchaser: ☐ Wellhead; ☐ Central Point; ☐ Tailgate; ☐ Offshore Platform; ☐ Other		
	b. Point of Re-Delivery or Measurement for Payment: If Applicable. ☐ Wellhead; ☐ Central Point; ☐ Tailgate; ☐ Offshore Platform; ☐ Other		
	c. Reduction for Wellhead Delivery _____ ¢/Mcf		
D. Total	TOTAL REDUCTION FOR QUALITY AND DELIVERY DEFICIENCIES _____ ¢/Mcf		

FOR COMMISSION USE ONLY
FPC GAS RATE SCHEDULE NO. _____
SUPPLEMENT NUMBER _____
COMM. NO. _____
DOCKET NO. _____
FILING DATE _____
EFFECTIVE DATE _____

8. Heat Content 2/

A.	Average Btu Content (Btu/c.f)		
B.	Btu Adjustment. Plus or (Minus). (¢/Mcf)		

9. APPLICABLE AREA RATES 3/ FOR SALE

A.	Base Area Rate(s) (¢/Mcf)		
B.	Base Area Rate (s) Less 7D Plus or Minus 8B (¢/Mcf)		
C.	Additional Amount for Offshore Gas Delivered Onshore (¢/Mcf)		
D.	Applicable Area Rate Here Estab. (Lower of 9B Plus 9C or 10A). (¢/Mcf)		
E.	Basis for Area Rate		
F.	Percent of Gas at Each Rate (If Unknown, Estimate.) 4/		

10. Rate Schedule Data

A.	Contract Rate(s), (¢/Mcf)		
B.	Current Rate(s) As Filed, (¢/Mcf) 5/		
C.	Percent of Gas at Each Rate		

11. SIGNATURE OF SELLER, AGENT OR OPERATOR	TITLE	DATE
12. SIGNATURE OF PURCHASER	TITLE	DATE

(See Reverse Side For Footnotes)

FPC Form 192 (8-71)

11. SIGNATURE OF SELLER, AGENT OR OPERATOR	TITLE	DATE
12. SIGNATURE OF PURCHASER	TITLE	DATE

FOOTNOTES:

1/ CHECK ONE OR MORE BOXES, AS APPROPRIATE AND ENTER PROPER DATES.

2/ (APPLIES ONLY TO OPINION 586) WITH RESPECT TO HUGOTON-ANADARKO CONTRACTS DATED PRIOR TO NOVEMBER 1, 1969, ANY REDUCTIONS IN THIS SECTION WOULD BE THOSE PROVIDED BY CONTRACT AND ACTUALLY IN EFFECT AT THE TIME THIS QUALITY STATEMENT IS FILED.

3/ WHERE APPLICABLE, REPORT BTU CONTENT AND ADJUSTMENT FOR EACH RATE LISTED IN ITEM 9. (THE FOLLOWING APPLIES ONLY TO OPINION 586) WITH RESPECT TO HUGOTON-ANADARKO CONTRACTS DATED PRIOR TO NOVEMBER 1, 1969, THERE WOULD BE A BTU ADJUSTMENT TO THE CEILING PRICE ONLY WHERE THE CONTRACT SO PROVIDES.

4/ IF MORE THAN ONE AREA BASE RATE IS APPLICABLE BY VIRTUE OF VARIATIONS IN DATES OF CONTRACT AND/OR AMENDMENTS (SECTION 4) OR TYPE OF GAS, ENTER EACH BASE RATE DETERMINATION IN A SEPARATE VERTICAL COLUMN AND INDICATE ON LINE 9D THE BASIS FOR EACH RATE BY REFERENCE TO SECTION 4 OR 5. FOR EXAMPLE, IF PORTION OF THE GAS SOLD UNDER A CONTRACT DATED IN 1962 IS GAS-WELL GAS AND A PORTION IS OIL-WELL GAS, ENTER AFTER ITEM 9D GWG (GAS-WELL GAS) UNDER THE RATES LISTED FOR GAS-WELL GAS AND OWG (OIL-WELL GAS) UNDER THE PORTION LISTED FOR OIL-WELL GAS. ALSO, IF MORE THAN ONE AREA BASE RATE IS APPLICABLE DUE TO VINTAGE (SECTION 4), ENTER AFTER ITEM 9D EITHER 4A, 4B, AND/OR 4C AS APPROPRIATE.

5/ THE TOTAL PERCENTAGE FOR THIS LINE SHOULD EQUAL THE TOTAL ANNUAL VOLUME UNDER ITEM 5B.

6/ THIS IS THE CURRENTLY EFFECTIVE RATE UNDER THE RATE SCHEDULE, AS FILED IN ACCORDANCE WITH SECTION 154.94 OR AS CERTIFICATED UNDER SECTION 157.23 OF THE COMMISSION'S REGULATIONS.

Opinion and Order

[13,722]

IN THE

UNITED STATES COURT OF APPEALS

FOR THE FIFTH CIRCUIT

No. 27492

SOUTHERN LOUISIANA AREA RATE CASES
AUSTRAL OIL CO., ET AL,
Petitioners,

versus

FEDERAL POWER COMMISSION,
Respondent.

Petitions for Review of Orders of the Federal Power Commission (Texas Case)

ON PETITION FOR REHEARING

(June 16, 1970)

Before THORNBERRY, COLEMAN and MORGAN, Circuit Judges.

PER CURIAM: In our original opinion, we indicated that there was new evidence of a possible impending gas supply shortage. Our affirmance of the Commission's orders is structured so as to allow the Commission great flexibility in dealing with this problem.

To this end, we indicated that the Commission had authority under section 16 of the Natural Gas Act to stay, modify or rescind any part of its order, notwithstanding our affirmance, if circumstances appearing since the issuance of the orders make a change advisable. Petitioners on rehearing, however, have argued to this Court that the Commission may exercise this power *prospectively* only; that is, petitioners argue that affirmance by this Court would preclude the Commission from reexamining revenues from gas that has already been delivered. We wish to make crystal clear the authority of the Commission in this case to reopen *any* part of its order that circumstances require be reopened. Under section 19(b) of the Natural Gas Act, this Court has the broad remedial powers that inhere in a court of equity, and pursuant to our equitable powers we make it part of the remedy in this case that the authority of the Commission to reopen any part of its orders, including those affecting revenues from gas already delivered, is left intact. The Commission can make retrospective as well as prospective adjustments in this case if it finds that it is in the public interest to do so.

At the same time, we emphasize that our judgment is an affirmance and not a remand. The appropriate place for originally considering what parts of the orders must be reopened in light of new evidence is before the Commission. It may be that the Commission will decide that the refunds it has ordered are just and reasonable or at least that their significance to the public interest is outweighed by the confusion and delay that would result from their reopening. In this event, the Com-

mission will allow its refund orders to stand as they are. Or it may be that the refunds are too burdensome in light of new evidence to be in the public interest. In that case, it is our judgment that the Commission shall have the power and the duty to remedy the situation by changing its orders.

In all other respects, the original opinion of this Court is the final disposition of this appeal.

Comparison of Present Base Area Rates Gas-Well Gas
With Opinion No. 546 Rates and Guideline and In-Line Rates
(at 15.025 psia)

	Present Base Area Rates [1]		Opinion Nos. 546 and 546-A Area Rates			Original Guideline Area Rates [7]		In-Line Area Rates [9]
	Contracts dated prior to Oct. 1, 1968 [2]	Contracts dated on or after Oct. 1, 1968 and newly discovered reservoirs discovered on or after Oct. 1, 1968	Contracts dated before Jan. 1, 1961 [4]	Contracts dated on or after Jan. 1, 1961 but proir to Oct. 1, 1968 [5]	Contracts dated on or after Oct. 1, 1968 [5]	Increased Rates	Initial Rates	Initial Rates
Gas subject to Louisiana production tax	22.375¢	26.0 [3]	18.5¢	19.5¢	20.0¢	14.0¢ [6]	21.25¢ [8]	20.0¢ [10]
Gas not subject to Louisiana production tax	21.375¢	26.0 [3]	17.0¢	18.0¢	20.0¢	—	19.5¢ [8]	18.5¢ [11]

[1] The base area rates shall be adjusted downward by 0.51¢ per Mcf for deliveries made closer to the wellhead than a central point in the field, the tailgate of a natural gas processing plant, an offshore platform to the buyer's line, or a point on the buyer's pipeline.

[2] These rates shall be adjusted upward by 0.5¢ per Mcf on October 1, 1973.

[3] The rate will escalate to 27.0¢ per Mcf on October 1, 1974.

[4] Rates are for gas-well gas, residue gas derived therefrom, and for all casinghead gas and any residue gas derived therefrom.

[5] Rates are for gas-well gas and residue gas derived therefrom.

[6] Plus applicable taxes.

[7] Guideline rates were established by Statement of General Policy No. 61-1, issued September 18, 1960, and amended October 25, 1960 and October 31, 1961 (24 FPC 818 and 902; 26 FPC 661). The original Policy Statement omitted listing an initial price level for the area. The First Amendment to the Policy Statement, issued October 25, 1960, provided an initial price level of 21.5¢ per Mcf for the area. The Fourth Amendment to the Policy Statement, issued October 31, 1961, provided for an initial ceiling price level of 21.25¢ per Mcf for gas subject to state taxes. For initial offshore sales not subject to state taxes, the initial ceiling price level was 19.5¢ per Mcf.

[8] Provided by Fourth Amendment to Statement of General Policy No. 61-1, issued October 31, 1961.

[9] In-line rates are the initial rates at which permanent certificates are issued, determined after hearing. They are not subject to refund unless the Commission so provides in a particular case, *Sunray DX Oil Co., et. al.*, 391 U.S. 9, 24 (1968). In-line rates are established only for contracts of the particular years for which a determination is made in a given proceeding.

[10] Applicable to contracts for all periods. See Opinion Nos. 398, 399 and 436. For exception allowing 20.625¢ per Mcf, see Docket No. CI65-560, Order of November 19, 1965.

[11] See Opinion Nos. 398, 436 and 437. For exceptions allowing 19.0¢, see Docket Nos. CI65-596 (Order of April 23, 1965), CP65-282 (Order of September 8, 1965) and CI65-560 (Order of November 19, 1965).

RESPONSE OF FEDERAL POWER COMMISSION TO PETITIONS FOR REHEARING AND REQUEST FOR REMAND

IN THE UNITED STATES COURT OF APPEALS FOR THE FIFTH CIRCUIT

No. 27492

SOUTHERN LOUISIANA AREA RATE CASES
AUSTRAL OIL CO., INC., ET AL,
Petitioners,

v.

FEDERAL POWER COMMISSION,
Respondent.

On Petitions to Review Orders
of the Federal Power Commission

GORDON GOOCH,
General Counsel,

PETER H. SCHIFF,
Solicitor,

For respondent.

Federal Power Commission,
Washington, D. C. 20426.

May 1970

[13,727]

[Caption Omitted]

Pursuant to directions of this Honorable Court of May 11, 1970, the following response is respectfully filed on behalf of the Commission, and a request for remand is made upon direction of the Commission.

I

The Court directed response to the question of "whether the Federal Power Commission has authority to stay, modify,

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or rescind an order once that order has been affirmed by this Court, if circumstances appearing since the entry of the order seem to make these actions advisable."

For the reasons hereinafter stated, the Commission clearly has the authority to modify, rescind, or set aside a rate order or moratorium affirmed by a Court, *but only prospectively* from the date of a subsequent Commission order. The Commission may now open the possibility of prospective rate increases, without a hearing, by modifying, staying, or lifting the moratoria on rate increase filings imposed by an order, thereby allowing interim rate increases subject to refund. The Commission would not, however, have authority to permit any *retroactive* increases or decreases in a rate order, unless authorized to do so by a Court.

The Commission has no authority to prescribe or to permit retroactive rate changes (*e.g.*, *F.P.C.* v. *Sunray DX Oil Company*, 391 U.S. 9, 24 (1968); *F.P.C.* v. *Hope Natural Gas Co.*, 320 U.S. 591, 618 (1944); *Hope Natu-*

ral Gas Company v. *F.P.C.*, 196 F. 2d 803 (CA4, 1952); *Shell Oil Company* v. *F.P.C.*, 334 F. 2d 1002 (CA3, 1964)). See also *Arizona Grocery Company* v. *Atchison, Topeka and Santa Fe Railway Co.*, 284 U.S. 370 (1932). It is also clear that Courts have no authority to order

[13,729]

reparations under the Gas and Power Acts. *Montana-Dakota Utilities Company* v. *Northwestern Public Service Company*, 341 U.S. 246, 254 (1951).

Therefore, prospective changes in rates—increases or decreases—are the method by which the Commission adjusts for circumstances appearing since the entry of an order, unless the reviewing Court otherwise directs.

II

The Court has also directed this Commission to respond to the question of "whether this Court may, in the exercise of its equitable powers, affirm an order of the Commission while preserving the authority of the Federal Power Commission to stay, modify, or rescind the order if the circumstances seem to make these actions advisable."

The Court has such broad powers under Section 19(b) of the Natural Gas Act that the question of the extent of its equitable powers apparently has not been decided. Under Section 19(b), from which the Court's jurisdiction to review a Commission order is derived, the Court may "affirm, modify or set aside such order in whole or in part." In addition, on motions for leave to adduce

[13,730]

additional evidence (such as were filed in this case), the Court may order additional evidence to be taken before

the Commission upon hearing in such manner and upon such terms and conditions as to the Court may seem proper, if there were reasonable grounds for failure to adduce such evidence in the proceeding. The Commission may modify its findings as to facts by reason of the additional evidence so taken, and it must file with the Court which ordered the hearings such modified and new findings for review. Thus, the Court has full statutory power to authorize or to instruct the Commission to (a) reconsider the record before it under standards set by the Court or (b) reopen the record for a specific purpose or purposes and to submit any modifications of the rate order to the same Court for further review in the light of the Court's standards, or both, without necessarily reversing the Commission and vacating the order for a new hearing.

Any equitable powers which would transcend these statutory powers would be determined by this Honorable Court.

III

Comment on the petitions for rehearing will be limited to one point. The petitions reflect doubt, disagreement and controversy over whether this Court intended to authorize

[13,731]

this Commission to make retrospective adjustments, if it deemed appropriate, in the rates set in Opinion 546 and 546-A *as of the effective date of the Commission opinions* (October, 1968) to the present or whether the Court intended, by use of the words "sustained in full" (slip op. pp. 2, 69), to restrict the Commission to prospective changes from some future date when subsequent Commission orders, if any, are issued lifting the moratoria or establishing a new just and reasonable rate.

Any doubt or disagreement among the parties might hamper expeditious handling of the Southern Louisiana Area rates. Therefore, the Commission urges any clarification deemed appropriate by this Honorable Court.

REQUEST FOR REMAND

In order that the Commission can discharge its regulatory responsibilities consistent with the Court's opinion, a remand is respectfully requested. Chairman Nassikas and

Commissioner O'Connor do not concur in the request for remand. The separate views of Commissioner O'Connor are attached.

Respectfully submitted,

GORDON GOOCH,
General Counsel,

PETER H. SCHIFF,
Solicitor,
For respondent.
Federal Power Commission,
Washington, D. C. 20426.

May 1970

[13,733]

STATEMENT OF COMMISSIONER LAWRENCE J. O'CONNOR, JR. OPPOSING A REQUEST FOR A REMAND OF OPINION NOS. 546 and 546-A

The Commission issued Opinion 546-A on March 20, 1969. In that decision the just and reasonable rates for natural gas in South Louisiana were established. To request a remand to reconsider that decision now, almost a decade after the initiation of the proceeding, would create a climate which will inhibit a possible settlement in the pending AR69-1 proceeding which was an outgrowth of the Commission's awareness that the gas supply situation was changing.

I feel that a remand of the instant litigation at the Commission's request would seriously inhibit fruitful settlement efforts in AR69-1. To in any way undermine such efforts would be most unfortunate. I firmly believe, and have so stated, that settlements among the various parties, when possible, are the most promising method of reaching accord and realizing results in the shortest period of time. The Court, in affirming Opinions 546 and 546-A, was cognizant of the impending gas shortage. A remand of this decision now would in no way expedite a solution to that problem and, indeed, might retard another significant pending effort which is seeking a resolution to that problem.

I, therefore, do not concur in a request for remand and must urge the Court to deny rehearing.

/s/ Lawrence J. O'Connor, Jr.

[13,746]

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL POWER COMMISSION

APPLICATION OF PLACID OIL COMPANY, *ET AL.* FOR REHEARING AND RECONSIDERATION OF THE COMMISSION'S OPINION NO. 598 AND ORDER DETERMINING JUST AND REASONABLE RATES FOR NATURAL GAS PRODUCED IN THE SOUTHERN LOUISIANA AREA

Come now Placid Oil Company, Hunt Oil Company, Hassie Hunt Trust, H. L. Hunt, William Herbert Hunt Trust Estate, Carolina Hunt Sands, W. H. Hunt, Lyda Hunt-Herbert Trusts, Lyda Hunt-Lamar Trusts, Lyda Hunt-Bunker Trusts, Lyda Hunt-Caroline Trusts, Lyda Hunt-Margaret Trusts, Claude M. Langton, Trustee, Secure Trusts, and Lamar Hunt, hereinafter referred to as Placid *et al.*, jointly and severally, pursuant to Section 19 of the Natural Gas Act of 1938, 52 Statutes 831, 15 U.S.C. Section 717r and Section 1.34 of the Commission's Rules of Practice and Procedure, and respectfully apply for rehearing and reconsideration of the Commission's Opinion No. 598 and Order Determining Just and Reasonable Rates for Natural Gas Produced in the Southern Louisiana Area issued July 16, 1971.

I.

Specifications of Error

A. The Commission erred in requiring that at least 50% of every producer's refund obligation be discharged by dedications of gas to the buyer to whom the refund is

owed in cases where the total refund obligation to a pipeline is less than $250,000.

B. The Commission erred in limiting the credit for discharging refund obligations to gas committed from the Southern Louisiana area in cases where producers increase their gas exploration expenditures but fail to find sufficient gas in the Southern Louisiana area to discharge such

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refund obligations.

C. The Commission erred in failing to set forth a formula for obtaining special relief for producers who make a sincere and diligent effort to find gas to meet their total refund obligation but fail to do so.

The reasons for the $250,000 exemption from the requirement of committing gas to the buyer to whom the refund is due, the provision for permitting refund credit for gas committed from area outside Southern Louisiana under specified circumstances, and the special relief formula together with the supporting arguments and suggested modifications to the UDC Settlement Proposal are set forth in "Comments of Placid Oil Company, *et al.*, to the Settlement Proposal and Request for Modification" dated December 8, 1970, and "Supplemental Initial Brief of Placid Oil Company, *et al.*" dated April 13, 1971. Such documents are incorporated herein by reference and made a part of this Application for Rehearing to the same extent as if copied herein.

II.

Adoption of Application for Rehearing of Indicated Respondents

In addition to the above Placid, *et al.* adopt, to the extent consistent with this Application, the Application for

Rehearing and Motion for Clarification of Indicated Respondents and assign as an error each of the points set forth in that document.

III.

Grounds for Relief

Each specification of error is based upon one or more of the following grounds: The Opinion and Order were arbitrary, abused the discretion of the Commission or exceeded its authority. The findings,

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conclusions or rulings, which are contrary to the herein requested relief, are contrary to law and are not supported by the evidence.

IV.

Conclusion

WHEREFORE, for the reasons presented Placid, *et al.* respectfully requests the Commission to grant rehearing and, upon rehearing, modify Opinion 598 and the accompanying order (1) by including a provision for the discharge of refund obligations up to $250,000 by the commitment of gas without regard to whom the refund is owed, (2) by including a provision for the discharge of refund obligations by the commitment of reserves outside the Southern Louisiana area under the circumstances specified, (3) by providing a formula for obtaining spe-

cial relief and (4) as requested by the Application for Rehearing of the Indicated Respondents.

Respectfully submitted,

By: _____

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and on behalf of:

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Claude M. Langston,
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Lamar Hunt

August 11, 1971

[13,751]

[Caption Omitted]

APPLICATION OF MOBIL OIL CORPORATION FOR REHEARING UPON AND RECONSIDERATION OF COMMISSION OPINION NO. 598, "OPINION AND ORDER DETERMINING JUST AND REASONABLE RATES FOR NATURAL GAS PRODUCED IN THE SOUTHERN LOUISIANA AREA"

Mobil Oil Corporation (Mobil), an aggrieved party to these proceedings, pursuant to Section 19(a) of the Natural Gas Act of 1938, 52 Stat. 832, 15 U.S.C. § 717 (r) (Act), and Section 1.34 of the Commission's Rules of Practice and Procedure, hereby respectfully applies for rehearing upon and reconsideration of the Commission's Opinion No. 598 and findings and order therein issued in these proceedings on July 16, 1971, and thereupon urges the Commission to amend and modify that opinion and order in the particulars set forth in this Application. In support thereof, Mobil shows:

I. STATEMENT

Mobil's Initial Brief and the Commission's Opinion set forth in detail the pertinent procedural history of these proceedings. Mobil is in agreement with the Commission's

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conclusions (1) as to the necessity for reopening and reconsidering the issues of rates prescribed by Opinion Nos. 546 and 546-A in Docket No. AR61-2, *et al.*, (2) as to the power and latitude available to the Commission under the Fifth Circuit's opinion on petitions for rehearing entered

on June 16, 1970 (See Opinion No. 598, Appendix), and (3) as to many of the Commission's findings and conclusions as to the area rates now required in the Southern Louisiana Area.

As Mobil has set forth in its briefs, Mobil believes and submits that the opportunity afforded by the Courts for the Commission to provide adequate rates for the Southern Louisiana Area remains subject to the standards of justness and reasonableness and the requirement for a restructure that is not unduly preferential and discriminatory. However, Mobil submits that this opportunity is forfeited by adoption of the inadequate rates, inequitable arrangements, and other unlawful provisions of the UDC settlement proposal.

Mobil, therefore, continues to oppose adoption of that proposal and to urge the Commission to adopt rates and a rate design consistent with the *Austral* and *Permian* constructions of the Act and with this record, particularly Exhibit 96. The correctness of Mobil's position and the necessity for rates

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and a "rate design" as proposed by Mobil are not changed merely because other rates and "rate design" which are actually inconsistent with the Act's standards may have "broader acceptability" among the distributor intervenors.[1] Moreover, where a rate design and rate structure are inherently and unduly discriminatory and preferential, even unanimous assent by other parties to such a proposal cannot form a lawful basis for adoption. These and other issues must be decided conventionally on the record and under the Act's standards.

[1] See Opinion No. 598, page 18.

Therefore, Mobil respectfully urges the Commission to reconsider the record and summaries of the record set forth in Mobil's Initial Brief and Reply Brief, and to consider the specifications of error in this Application in light of the record. In particular, Mobil urges the Commission to review and correct factual statements. For example, in paragraph 36 on page 18 of the Opinion, the Commission states that those favored by the UDC proposed will be able "to retain revenues collected up to the agreed 22.375 cents," while the record reflects that revenues retained by those so favored have been collected, in some instances, at rates considerably in excess of this level, and even up to 25 cents per Mcf. Under the UDC proposal and the Commission's orders, the Commission would allow

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retention of these revenues and thus "a favored revenue position" more favorable than is indicated in the Commission's opinion (see Ex. 45; Ex. 104, Lines 3 and 20 on each schedule; Tr. 6968-6969).

In addition, Mobil calls attention to the fact that because of certain modifications and changes of the UDC proposal in the Commission opinion, that proposal has been rendered a nullity as a "settlement proposal," and use thereof, and Commission reliance thereon, should be rescinded or withdrawn. Comparison of the UDC proposal with the provisions of Opinion No. 598 reveals, for example, that the Commission has omitted provisions covering the so-called Offshore "gray area," or "disputed zone" as to jurisdiction of Louisiana and the United States; has omitted the so-called "tracking procedures"; has modified provisions relating to discharge of refund obligations under Section 3 and 8 of the UDC proposal; and has included a 0.51 cents per Mcf deduction for gas

not delivered at a central point, which was not provided for in the UDC proposal. However, the "Answer By Indicated Producers To Motion for Promulgation of Settlement Proposal" filed herein on November 6, 1970, stated (p. 3):

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> "It is the position of the undersigned producers that the various provisions of the Settlement Proposal are all so interrelated that a change in any one would be likely to affect all of the other provisions. We would, therefore, emphasize that the Settlement Proposal must be considered as a whole and not considered piecemeal."

Similarly, the one Staff witness supporting the UDC proposal stated his understanding was that the UDC proposal was a "package" that must be accepted by the Commission without modification (Tr. 6794, 7440-7441). Accordingly, aside from the errors listed below, the Commission has erred in treating this "settlement proposal" as still before it, as such, once the Commission modified and therefore rejected any part thereof. To the extent that the Commission has relied upon the other provisions, the Commission thus has erred in relying upon a document that has been rendered a nullity as a viable "settlement proposal" under the Commission's rules.

For these reasons, and the additional errors listed in this Application, Mobil seeks rehearing.

II. SPECIFICATIONS OF ERROR

1. The Commission erred in making the opposed UDC "settlement" proposal a "part of the record" by its order of December 24, 1970, by reaffirming and perpetuating such act and order in

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Opinion No. 598 (*e.g.*, pp. 7, 8), by refusing to strike that proposal from the record, and particularly,

(a) violated the provisions of Section 1.18(e) of its own Rules of Practice and Procedure;

(b) accorded undue preference and unlawful advantage to the proponents of that proposal by making that proposal a "part of the record" without sponsoring witnesses, without cross-examination, and without other due process; but at the same time required opponents to present their proposals, and bases for opposition to the UDC proposal, through witnesses made available for cross-examination;

(c) accorded undue preference and unlawful advantage, and denied due process to opponents, by failing to make all pleadings responsive to, and in opposition to, the UDC "settlement proposal" similarly a "part of the record"; and by failing to make the alternative "settlement proposal" submitted by Mobil similarly "part of the record" in the same manner and under the same procedures accorded UDC.

(d) received material, documents, data, and argumentative statements tendered by UDC into "the record" without sponsorship by witnesses available for cross-examination

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or support by substantial evidence; and "leaned heavily" upon, and otherwise made use of the unsupported UDC proposal in conclusions as to rates, "rate design and for the refund provisions" (see Opinion No. 598, pp. 18-19);

(e) violated the prerequisites for a lawful "hearing" required "by statute" under Sections 4 and 5 of the Natural Gas Act, and for a lawful "record" and procedures thus required in "formal rulemaking" under the Administrative Procedure Act (APA), 5 U.S.C. § 551, *et seq.*;

(f) otherwise erred in relying upon, making use of, or basing findings, conclusions or orders upon, the UDC "settlement proposal," the Motion with respect thereto, and any parts thereof; and

(g) erred in making the UDC Motion and proposal a part of Opinion No. 598 as Appendix A thereto.

2. The Commission erred in classifying the UDC group as a group "representing the consumer interests" in these dockets, and thereby reached a conclusion as to this group not supported by required findings of fact, by substantial evidence, or by any other indicia countervailing findings and conclusions as to members of this particular group in other rate proceedings under

Sections 4 and 5 of the Act (compare Opinion No. 598, p. 7, fn. 26, with Order No. 411 and Order No. 411-B issued October 2, and November 27, 1970 in Docket No. R-371; and Opinion No. 568 issued October 7, 1969, Docket No. RP66-4, 42 FPC 738 (1968), appeal pending, No. 23,740, D.C. Circuit).

3. The Commission erred in failing to make required complete findings of fact upon substantial evidence, or by reference to any of the pleadings, as to content of pleadings responsive to or in opposition to the UDC "settlement proposal" submitted in response to Commission

request for comment and responsive pleadings, or as to evidence submitted by Mobil through the Witness David L. Knapp, and exhibits sponsored by him, as to the UDC proposal, substance and effect thereof, grounds for objections thereto, and proposed alternatives before the Commission.

4. The Commission erred in failing to reverse, and thus in effect affirming, the Presiding Examiner's action striking a portion of Mobil's rebuttal rate design presentation at Docket No. AR69-1, Tr. 7571-7579, 7665-7666 (see Mobil Initial Brief, pp. 64-66).

5. The Commission erred in its conclusion that a "duty" to consider a "settlement proposal" is a valid basis for the

procedures used in these dockets, for a decision to accept an opposed proposal into "the record," and for the use made of such a proposal in this docket and in Opinion No. 598; erred in the conclusions and constructions of the Natural Gas Act and the APA expressed in paragraph 19 on page 9 of Opinion No. 598; and misconstrued and misapplied the holdings in the cases and decisions cited in footnotes 33, 35, and 37 on page 9, Opinion No. 598; and further erred in its "duty" to consider the settlement proposal submitted by Mobil with its Answer, in the same manner and way the Commission considered the UDC proposal.

6. The "rationale" for acceptance of the provisions of the settlement proposal (Opinion No. 598, pp. 12-19) contains and rests upon incomplete findings of fact as to content of record evidence as to substance, effect, opposition, and alternatives to the UDC proposal; is contrary to the substantial evidence; and contains and rests

upon misconstructions and misapplication of the provisions of the Natural Gas Act and cases cited therein, insofar as these pages of Opinion No. 598 are addressed to, and form a predicate for, acceptance and use of any of the provisions of the UDC proposal as a

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part of the Commission's decision.[2]

7. The Commission erred in failing to find and conclude that the UDC proposal, and the "rate design" based thereon, are unlawful because of their unduly preferential, unduly discriminatory, anti-competitive, and unlawful effects operating in favor of one group of producers, and against other producers who, in the past, generally followed Commission guidelines and policies; erred, for the same reasons, in adopting the provisions of the UDC proposal (see Opinion 598, pp. 18-19); erred for all of the reasons set forth in this Application in finding and concluding that the UDC proposal and "rate design and rate levels recommended therein are just and reasonable" (Opinion No. 598, pp. 18-19); and further erred, for the same reasons, in finding and concluding that "broader acceptability . . . with the distributor group," "relief of administrative burdens," and assumed reduction of "the probabilities

[2] The Commission also erred in relying in this docket on specific provisions of Opinion No. 595 which were adopted by error, and in using any of the provisions of that Opinion which are unsupported by valid findings, substantial evidence, or correct conclusions of law in the instant case, and as to which Mobil has sought rehearing in Docket Nos. AR64-2, *et al.*, particularly in the unlawful use of the UDC proposal in that case as the basis for the "rate design conclusion" in another area rate case.

of future litigation" either exist, or will exist, in fact, under implementation of the UDC proposal, and even if such were correct, that these considerations warrant, justify, or otherwise render lawful the Commission adoption of the UDC proposal or any provisions thereof (Opinion No. 598, pp. 18-19).[3]

8. The Commission erred in finding and concluding that there is "an adequate cost" basis for the "results" of finding and concluding that provisions of the UDC settlement proposal are "just and reasonable and in the public interest," particularly as to "rate design" and "refund provisions" (*Cf.* Opinion No. 598, page 19, paragraph 40).

9. The Commission erred in failing to find and conclude that the econometric presentation of Dr. Khazzoom establishes that "the settlement prices in the Southern Louisiana area" are unreasonably and unlawfully low (see Opinion No. 598, page 38, paragraph 87).

10. The Commission erred in finding and concluding that a "reasonable target level of service for Southern Louisiana jurisdictional sales is between 45 and 50 trillion cubic feet for the 1971-1975 period" (Opinion No. 598, page 39, paragraph 90),

particularly because such finding and conclusion are not supported by substantial evidence, are contrary to the preponderance of substantial evidence showing higher required and "reasonable" levels, and are contrary to the

[3] Detailed references to the record as to each point covered by this Specification are set forth in Mobil's Initial Brief and Reply Brief to which reference is respectfully made.

Austral mandate, to the standards of Sections 4 and 5 of the Act, and to the Commission's obligations under the Act, particularly as construed in *Permian.*

11. The Commission erred in finding and concluding that "the incentives and rate levels" established in Opinion No. 598 "will encourage producers to increase their exploratory and developmental efforts in the Southern Louisiana area, particulraly offshore" (Opinion No. 598, page 39, paragraph 90), for each of the reasons set forth under Specification No. 10, *supra.*

12. The Commission erred in finding and concluding that the "settlement proposal enables" the Commission to achieve the "objective" of a "price equal to but no higher than the level required to bring forth the necessary supply" Opinion No. 598, page 43, paragraph 101) for each of the reasons set forth in Specification No. 10, *supra.*

13. The Commission erred in its findings and conclusions under the heading "Industry Consequences," Opinion No. 598, pages 39-45, particularly as to failure to make the specific

findings and conclusions required under *Austral,* as to attraction of "additional capital to the exploration and development in Southern Louisiana" (Opinion No. 598, page 44), as to assumed increased "competition" yielding "beneficial results" from the Commission's decision (Opinion No. 598, page 44), as to "no increase in market concentration among the sellers of natural gas as a result" of the Commission's orders in this case (Opinion No. 598, page 45), as to a belief that Commission "findings herein, should attract new entrants to the industry" (Opinion No. 598, page 45), and as to the view that the

Commission" orders should have an overall tendency to be pro-competitive" (Opinion No. 598, page 45); and erred in failing to find and conclude, as required by the substantial evidence and applicable law and authority, that the "consequences" of the Commission's orders will be the opposite.

14. The Commission erred in relying upon, and making findings upon, Section 11 of the UDC settlement proposal without making findings of fact as to all comments, especially express reservations filed by numerous producers, and other discussion of Section 11 in the pleadings and in the record, and without expression, in clear findings and conclusions, of the actual use made by the Commission of this Section of the UDC proposal

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in reaching the conclusions stated in the Opinion and in the conclusions to adopt provisions of the UDC settlement proposal; and further erred to the extent the Commission relied upon Section 11 of the UDC settlement proposal.

15. The Commission erred in failing to find and conclude that the required level, and "just and reasonable" level, of rates for "new gas" is at least 30 cents per Mcf (*cf.* Opinion No. 598, p. 48); and in adopting, instead, the level of 26 cents per Mcf, erred particularly

(a) in adopting a rate below that shown required by the substantial evidence (*e.g.*, the presentations of the Witnesses Sherwin and Knapp);

(b) in failing to find the record shows costs of such "new gas" through 1969 ranging "up to 38.02 cents per Mcf at 14.73 psia, exclusive of production tax" (Opinion No. 598, page 49);

(c) in failing to find and use a rate of return of at least 16% in cost computations (Opinion No. 598, pp. 52-53);

(d) in using, apparently adopting, or otherwise relying upon the "cost" testimony of the Witness Engel (Opinion No. 598, pp. 52-53), or parts thereof (Opinion No. 598, pp. 54-57);[4]

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(e) in failing to make adequate required findings of fact upon other substantial evidence showing that a conclusion of at least 30 cents is required thereby;

(f) in failing to adopt all of the provisions of Exhibit 96, page 5, as to the "delivery allowance" for offshore gas delivered by a producer onshore (Opinion No. 598, p. 57);

(g) in failing to include an adequate allowance for required exploration and development, particularly in light of rising costs currently and predicted for the immediate future (Opinion No. 598, p. 57);

(h) in finding and concluding that the rate of 26 cents is "within the zone of reasonableness"; is "at the appropriate level" to "elicit exploratory and developmental effort in Southern Louisiana"; is "consistent with nationwide costs of new gas" (Opinion No. 598, p. 57), and would be "at a competitive price level with the market price for intrastate gas" in Southern Louisiana (Opinion No. 598, p. 58);

(i) in finding acceptable or otherwise adopting the "automatic escalation" and other provisions of Section 3.1(6) (Opinion No. 598, p. 59); and

[4] See particularly discussion in Mobil's Initial Brief, pp. 15-16, 35-36, and Mobil's Reply Brief, pp. 26-29.

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particularly in that each of the above findings and conclusions is not adequately based on required findings of fact; is not supported by substantial evidence; is in conflict with the preponderance of evidence; is not consistent with the requirements and mandate of the *Austral* opinion; and is not consistent with, but is in conflict with, the standards of Section 4 and 5 of the Natural Gas Act.

16. The Commission erred in finding and concluding flowing gas "costs" and "just and reasonable" rates for "flowing gas," below the levels of 24 cents onshore and 23 cents offshore, as proposed by Mobil in Exhibit 96, are supported by the record consistent with *Austral*, and consistent with the standards of Section 4 and 5 of the Act, and particularly erred

(a) in failing to adopt, apply, and use the costs as shown by the Witness Auten in Exhibit 66;

(b) in adopting or otherwise relying upon the flowing gas costs as shown by the Witness Engel, to the extent such presentation is inconsistent with that presented by the Witness Auten (Opinion No. 598, pp. 60-63);

(c) in adopting or otherwise using a rate of return of 13% to arrive at flowing gas "costs" and thus at flowing gas rates; in so using a rate of return lower than that

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used for "new gas" (Opinion No. 598, page 62); and in so arriving at and using a rate of return in conflict with the comparable earnings test and other

required criteria as spelled out in *Hope*[5] and *Permian*[6] with the standards of Sections 4 and 5 of the Act and the Fifth Amendment to the Constitution of the United States; and unlawfully discriminating against "flowing gas" and sellers of flowing gas;

(d) in adopting and appying flowing gas costs, rates, and a rate design which are unduly discriminatory, unduly preferential, inequitable, arbitrary, and unlawful as heretofore cited and shown by Mobil in its brief;

(e) in finding and concluding that the rate of 22.375 cents "proposed in the settlement is the just and reasonable rate subject to automatic and contingent escalations," and in similarly fixing an offshore rate 1 cent less (Opinion No. 598, page 63);

(f) in finding and concluding that such "prices and incentives" should help attract capital to exploration and development in Southern Louisiana and provide "reasonable

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incentives to find gas and dedicate that gas to the interstate market," and that rates allegedly designed for "industry response" are sufficient here; and that it is "neither feasible nor in the public interest to attempt to establish incentive rates" for individual producers in Southern Louisiana." (Opinion No. 598, page 63);

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[5] *FPC* v. *Hope Natural Gas Co.*, 320 U.S. 591 (1944).

[6] *Permian Basin Area Rate Case*, 390 U.S. 747 (1968).

particularly in that each of the above findings and conclusions is not adequately based on required findings of facts; is not supported by substantial evidence; is in conflict with the preponderance of evidence; is not consistent with, but is in conflict with, the standards of Sections 4 and 5 of the Natural Gas Act.

17. The Commission erred in adopting the "contingent adjustment," "refund credit," and related refund provisions of Sections 3 and 8 of the UDC proposal, and the like or similar provisions of the Commission opinion (Opinion No. 598, pages 63-64, 66-69, 74, 78-81), and particularly erred

(a) in adopting and ordering into effect such provisions which are without adequate findings of fact, which are without support in substantial evidence, and which are in conflict with the preponderance of substantial evidence;

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(b) in adopting and ordering into effect such provisions, arrangement, and system, which are anticompetitive in effect and operations, unjust, unreasonable, unduly discriminatory, unduly preferential, arbitrary, otherwise violative of the standards of Sections 4 and 5 of the Act, and unlawful.[7]

18. The Commission erred in failing to adopt a provision for "quality adjustments" in accordance with the precise terms of Section 2.3 of Exhibit 96 (pp. 2-3).

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[7] See discussion in Mobil's Initial Brief, pp. 45-58, and Reply Brief, pp. 4-16, 29-33. See also references to such discussion and issues appearing at Opinion No. 598, page 18.

19. The Commission erred in adopting the "transportation" provisions of the UDC settlement proposal and terminating Docket No. R-338 (Opinion No. 598, pp. 65, 76), and particularly erred in thereby adopting and implementing such provisions without adequate findings of fact, without support in the substantial evidence, and without regard to the preponderance of relevant and material evidence establishing that such provisions are too high, are unsupported by substantial evidence, are unreasonable, and thus are in conflict with the provisions and standards of Sections 4 and 5 of the Natural Gas Act; and further erred in

failing to provide that such charges should be left to negotiation between the parties and specific review by the Commission in connection with processing of certificate applications under Section 7 of the Act.

20. The Commission erred in adopting and imposing the "moratoria" set forth in Opinion No. 598, paragraph 168, page 66, and particularly because such provisions are not supported by required findings of fact; are not supported by substantial evidence; are contrary to the substantial evidence as to predicted future rising costs and inflation; are particularly inadequate in relation to "escalations" discussed *supra*; are unreasonable; are contrary to the standards of Sections 4 and 5 of the Act, particularly as to requirements for valid moratoria as discussed in *Permian* and *Austral*; and unlawfully operate to impose unjust and unreasonable rates during the period such provisions would be effective and operable.

21. The Commission erred, for reasons set forth *supra*, in adopting the "refund" provisions described at Opinion No. 598, paragraphs 169-172; in adopting the find-

ings and conclusions as to "reasonable" rates and "the public interest" there set forth; in adopting or otherwise approving the provisions of the UDC proposal there described as "just and reasonable" and "in the

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public interest"; and in findings and conclusions therein as to "net benefit to the consumer" under such provisions; particularly in that there is no record support for provisions of the UDC proposal covering refunds for the period October 1, 1968 to January 1, 1971, and this provision particularly is arbitrary, capricious, unduly discriminatory, unduly preferential, and unlawful.

22. The Commission erred in adopting those provisions of its "Findings and Order" specifically covered by the Specifications of Error set forth, *supra*, in finding and concluding that rates "in excess of the applicable just and reasonable rates determined herein are unjust and unreasonable" (Opinion No. 598, p. 72); and as to each such Specification, in addition to errors asserted, the Commission abused or exceeded its authority and adopted a finding, conclusion, or ruling contrary to law and the substantial evidence.

23. The Commission erred in finding and concluding that the UDC settlement proposal avoids "radical and sudden price shifts," and, in any event, in treating such considerations relevant or controlling, particularly where such findings and conclusions can be at the risk of adequate capital for producers and an adequate gas supply.

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24. To the extent that the Commission has failed to adopt express findings and conclusions and orders con-

sistent with each of the provisions of the "rate design" set forth by Mobil in Exhibit No. 96, the Commission has failed to adopt rates and "rate design" provisions required by the substantial evidence, by the "mandate" of *Austral*, by the need for "incentives" and increased exploration and development, and by the "just and reasonable" standard of Sections 4 and 5 of the Act.

25. To the extent that in cost estimates and in fixing rates, the Commission has failed to make provision for producers to recover royalty payments incurred, or to be incurred, by application of the provisions of Opinion No. 562, particularly if producers are required to pay royalty, for any period, on bases in excess of the producers' filed, effective rate, the Commission has imposed an unduly discriminatory, and preferential rate structure, imposed unjust and unreasonable rates on producers, and deprived producers of compensatory rates otherwise due under the Commission findings and order.

26. The Commission erred in adopting and prescribing filing requirements, notice periods, and effective dates for rate filings inconsistent with the provisions of Section 4 of the Natural Gas Act, particularly as now recognized by the

Commission in Docket Nos. AR64-2, *et al.*, on July 29, 1971 in its "Order Granting Applications For Rehearing and Amending Opinion No. 595 and Related Letter Orders," upon which Mobil here relies.

27. For each and all of the foregoing errors, Mobil has been deprived of a fair hearing and a lawful substantive decision on the merits, in violation of Sections 4 and 5 of the Natural Gas Act, the Administrative

Procedure Act, and the Fifth Amendment to the Constitution of the United States.

Other specifications of error, or grounds for rehearing, set forth by the Major Producer Group, to the extent consistent with those specified herein by Mobil, are adopted by Mobil.

ARGUMENT

In its opinion, the Commission notes that Mobil filed briefs expressing its grounds for opposition to the UDC proposal and setting forth the affirmative alternative rate design proposed by Mobil in Exhibit 96. In both its Initial Brief and in its Reply Brief, Mobil discussed each of the principal provisions of that presentation and included specific references to the parts of the record and authorities supporting Mobil's argument and position. Reference is respectfully made to those briefs as to each of the specifications of error listed *supra*.

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In view of that extensive briefing upon the issues, Mobil does not restate or repeat such arguments here. Mobil does, however, respectfully urge the Commission, in review and passing upon the specifications of error, again to consider the portions of the record that have been cited by Mobil and Mobil's arguments upon all of the issues in this case.

WHEREFORE, Mobil applies for rehearing upon and reconsideration of Opinion No. 598 and the "Findings and Order" therein, and urges that thereupon, the Commission modify the opinion, findings, and order, in the particulars specified by Mobil, and adopt an opinion, findings, and order consistent with provisions of Exhibit No. 96 in these proceedings.

Respectfully submitted,

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August 9, 1971

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[Caption Omitted]

APPLICATION OF AMOCO PRODUCTION COMPANY FOR REHEARING UPON OPINION NO. 598

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The Btu gap is unjust and should be eliminated .....

The treatment accorded Bastian Bay is unlawful and Opinion 598 must be modified .....

CORRECTIONS REQUIRED TO APPENDIX B TO OPINION 598 WHICH SPECIFICALLY RELATE TO AMOCO PRODUCTION COMPANY DOCKETS .....

VERIFICATION .....

CERTIFICATE OF SERVICE .....

[13,779]

[Caption Omitted]

APPLICATION OF AMOCO PRODUCTION COMPANY FOR REHEARING UPON OPINION NO. 598

Amoco Production Company (Amoco), formerly Pan American Petroleum Corporation, pursuant to Section 19(a) of the Natural Gas Act and Section 1.34(a) of the Commision's Rules of Practice and Procedure hereby applies for rehearing upon Opinion No. 598, "OPINION AND ORDER DETERMINING JUST AND REASONABLE RATES FOR NATURAL GAS PRODUCED IN THE SOUTHERN LOUISIANA AREA" issued on July 16, 1971. In support of this application Amoco herewith files its specifications of error each of which is based upon one or more of the following specific grounds:

1. The Commission abused or exceeded its authority, reaching arbitrary, unduly discriminatory, unduly preferential or otherwise unlawful results.

2. The Commission finding, conclusion or ruling is (a) contrary to the law or the evidence; (b) is not supported

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by substantial evidence; (c) is not given factual or reasoned support as required by law and the evidence of record.

STATEMENT OF FACTS

The Commission is to be commended for carrying out the mandate of the United States Court of Appeals for

the Fifth Circuit in *Austral*,[1] and attempting "to remedy the situation by changing its orders" (Order on Rehearing of June 16, 1970), after finding on the consolidated record that there is ". . . a critical shortage of gas in the United States" (p. 23) requiring that Opinions 546 and 546-A, which never became effective, be set aside. The Commission specifically held that ". . . Opinions Nos. 546 and 546-A now perform no office" (p. 6), and that because of "the worsening gap between supply and demand, . . . price must have a major responsibility for eliciting new supplies" (p. 19). Moreover, the Commission recognized its duty "to try to achieve an equitable spreading of the burdens and the benefits of our orders" (p. 6). In addition, the Commission recognized its duty ". . . to take all the action we believe necessary to reverse a downtrend of the exploration and development effort, thereby to increase the likelihood of augmenting the national inventory of proved reserves of natural gas" (p. 6).

[13,781]

Even more significant for the gas industry and the consumers of natural gas in this nation is the clear indication in Opinion No. 598 that the Commission is breaking away from the unworkable formulae of the past and making substantial revisions in its area rate approach and adopting more viable regulatory policies. The Commission appears to recognize that it is necessary and desirable in the public interest to design rates at levels to assure adequate gas supplies so essential to the efficient utilization of pipeline facilities and to provide service at reasonable cost to consumers, considering their

[1] Southern Louisiana Area Rate Cases, *Austral Oil Co., et al.* v. *FPC*, 428 F.2d 407 (5th Cir., 1970), cert. denied, *Municipal Distributor Group, et al.* v. *FPC*, 400 U.S. 950.

needs, the costs of alternative supplies, and the attendant risks. Amoco's principal concern is that the Commission's well-intentioned attempts to remedy the situation may be a case of "too little, too late" and respectfully urges the Commission to grant rehearing and remedy now the inadequacy of the incentives afforded in Opinion 598. Because of lead time considerations, Amoco believes that the Commission must act now to improve incentives in order that its attempts will be more effective in alleviating the growing energy crisis facing this nation. At a time of growing gas shortages, the Commission can and should establish more adequate area rate levels and design rates as proposed by Amoco which action is required by the preponderant proof in this extensive record.

As Amoco demonstrated in its Initial Brief by reasoned arguments supported by the substantial evidence of record in this consolidated proceeding, area ceiling prices of *at least* 26¢ for "old" gas and 30¢ for "new" gas (with no refunds required for past periods) are well within the "zone of reasonableness" for prescribing just and reasonable rates and

[13,782]

the rate design needed to alleviate the critical supply-demand imbalance as soon as possible and essential to restore the economic health and confidence and generate the capital funds needed by the gas producing industry. Amoco shows herein that the area ceiling prices prescribed by Opinion 598 are inadequate to achieve the supply goals found by that opinion to be the consequences required in establishing valid just and reasonable rates.

On the one hand, the Commission considered in detail in Opinion 598 the various contentions and rate design

proposals of other producers and parties, particularly those related to the United Distribution Companies settlement proposal (Appendix A to Opinion 598), regardless of lack of record evidentiary support. On the other hand, the Commission failed to evaluate the Amoco proposals. In the interest of brevity, Amoco hereby adopts and incorporates at this point, as if fully set forth herein, the Initial Brief of Amoco Production Company filed in these consolidated proceedings which sets forth in detail the background history and procedural facts antedating the issuance of Opinion 598 and clearly reflects the alternative rate design proposed by Amoco.

The Commission mischaracterized and summarily rejected Amoco's contentions, apparently believing them to be the same as those of Mobil Oil Corporation, which is not correct as Mobil proposed a modified settlement. Amoco's proposal is that the overriding public interest mandates that the Commission reject the non-viable, inequitable, and unduly discriminatory and preferential UDC settlement proposal and hand down a decision on the merits based on reasoned findings from the substantial

[13,783]

evidence in the record. That opinion should establish revised regulatory standards applicable to all areas and set adequate rate levels to assure enhanced gas supplies to alleviate the critical gas shortage and be designed to protect consumers against excessively costly shortages. Importantly, a decision on the merits clearly would have nationwide application in all other areas having potential gas supplies but inadequate incentives. The Commission's action in issuing Order No. 435, setting revised initial rates for the Rocky Mountain Area is a commendable step in the right direction.

Amoco respectfully urges the Commission to grant rehearing as sought herein and upon reconsideration to duly consider and then adopt the Amoco rate design proposals which are deemed to be the minimum requirements to "provide appropriate protection to the relevant public interest, both existing and foreseeable" (*Permian*, p. 792)[2] and to reject the UDC settlement proposal as accepted in Opinion 598 as not a lawful or viable alternative to a decision on the merits.

SPECIFICATIONS OF ERROR

1. For the sake of brevity and to avoid repetition, Amoco hereby adopts and incorporates herein at this point, to the extent not inconsistent herewith, each of the specifications of error and requests for clarification set forth in the "Application for Rehearing and Motion For Clarification of Indicated Respondents" being filed contemporaneously herewith.

[13,784]

2. The Commission erred in mischaracterizing Amoco's position and in arbitrarily, discriminatorily and unlawfully failing to consider and evaluate the Amoco rate design proposal, which is supported by substantial evidence and rationally required to best serve the public interest, while expressly considering and adopting UDC settlement proposal provisions regardless of lack of evidentiary support, which acts are violative of procedural and substantive due process of law guaranteed by the Fifth Amendment to the Constitution of the United States.

3. The Commission erred in failing to design a structure of just and reasonable rates in Opinion 598 comport-

[2] *Permian Basin Area Rate Cases*, 390 U.S. 747 (1968).

ing with its declared rationale and objective and in fixing rates so low as to be unjust and unreasonable and offering inadequate incentives to assure consumers sufficient gas supplies to halt and reverse the downward trend of the reserves-to-production ratio.

4. The Commission erred in failing to properly evaluate the supply-demand evidence and in erroneously finding the target level of service for jurisdictional sales in the Southern Louisiana Area, at the rate levels prescribed in Opinion 598, to be 45-50 trillion cubic feet (Tcf) for the period 1971-75, requiring commitments of approximately 60 Tcf to the interstate market in this period without reasoned findings or substantial evidentiary support.

5. The Commission erred in leaning too heavily upon the settlement for rate design and refund provisions and in failing to evaluate and make reasoned findings and conclusions based upon the

[13,785]

substantial evidence of record in carrying out the mandate of the Fifth Circuit in *Austral* after expressly finding in Opinion 598 that there is a worsening gap between supply and demand and that price must have a major responsibility for eliciting new supplies.

6. The Commission erred in adopting in Opinion 598 the refund forgiveness and liquidation of refund liability provisions of the UDC settlement proposal without rationale or evidentiary support therefor, and in extending past inequities for the future, which actions are unduly discriminatory, unduly preferential, contrary to the public interest and unlawful under the Natural Gas Act and violate the Fifth Amendment to the Constitution of the United States.

7. The Commission erred in failing to consider the substantial record evidence of past rate inadequacies and of refunds already made by many individual producers which supports Amoco's position that no further refunds should be required for past periods in order to do equity and justice prospectively.

8. The Commission erred in ignoring the evidence that producer revenue realizations for past periods were wholly inadequate and that such revenue realizations for the future will be well below the base ceiling rates prescribed in Opinion 598 due to contract limitations, the refund obligations imposed and inadequate incentive rate levels fixed by that opinion.

[13,786]

9. The Commission erred in approving in Opinion 598 without factual or rational or substantial evidentiary support, the provisions of the settlement for an upward Btu adjustment from a level of 1,050 Btu per cubic foot instead of from 1,000 Btu, from which the downward adjustment is made.

10. The Commission erred in failing to consider and make findings on the compelling and preponderant evidence in the record of the critical need of gas producers for substantially increased capital funds from flowing gas for exploration and development of additional gas supplies to meet consumer demands.

11. The Commission erred in adopting in Opinion 598 many of the provisions of the UDC settlement proposal without any factual, rational or evidentiary support whatever.

12. The Commission erred in agreeing with the provisions of the settlement proposal that "it shall not dis-

pose of any of the issues in the . . . Bastian Bay Field (Docket Nos. CI66-910, *et al.*) proceedings" and in finding that application of Opinion 598 to those proceedings would be inappropriate in these circumstances, which conclusion is without evidentiary support, is grossly inequitable, and amounts to undue discrimination and preferential treatment violative of the Natural Gas Act and its own approved policies and precedents and deprives Amoco of due process of law.

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13. The Commission in Opinion 598 fails to accord due process and violates Section 4(d) of the Natural Gas Act and its own Regulations (Sec. 154.94) in concluding, without reasoned findings or evidentiary support, that the settlement reasonably sepcified that rate increases shall not be effective until 65 days from the date of the opinion to permit tracking increases to be filed by the pipelines. This action illegally extends the 30-day notice period prescribed by statute depriving Amoco of its right to just and reasonable rates in order to benefit the pipelines and is arbitrary, unduly discriminatory and preferential and otherwise unlawful. (See the Commission's "Order Granting Applications For Rehearing and Amending Opinion No. 595 and Related Letter Orders" issued July 29, 1971, which requires a comparable amendment to Opinion 598.)

14. The Commission erred in prescribing, without substantial evidentiary support and required findings of fact, the arbitrary, capricious and unreasonable moratoria on rate increase filings above the applicable area rate prescribed in Opinion 598 until October 1, 1976, for contracts dated prior to October 1, 1968, and until October 1, 1977, for contracts dated on and after Octo-

ber 1, 1968, except in compliance with a specific order of the Commission.

15. The Commission erred in arbitrarily and unlawfully ordering without evidentiary support or disclosing its reasons therefor, that the procedures for establishing and revising the amount of reserves in new dedications, and the reports required, will be established by later

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order in conformity with the settlement proposal (Appendix A to Opinion 598). The Commission erred in not convening a conference so that the parties affected would be afforded the opportunity to present evidence and to be heard before any such order issues.

16. The Commission erred in failing to provide full, fair and equal treatment for all Southern Louisiana producers subject to regulation and having refundable amounts, including those not yet paid out under past rate settlements, such as Amoco's Docket Nos. G-9279, *et al.*, and acted arbitrarily and capriciously applying the Natural Gas Act and Regulations with undue discrimination and preference, ignoring its own policy and precedents in violation of due process guarantees of the Fifth Amendment to the Constitution of the United States.

17. The Commission discriminatorily and unlawfully erred in Opinion 598 in not providing for equality of incentives as between producers and in giving undue emphasis to forgiveness of refund obligations, which limits the distribution of the incentives, rather than to the adequacy of the rate levels for both flowing and new gas to permit substantially expanded exploration and devel-

opment of additional supplies by the entire producing industry to best serve the public interest.

18. Assuming *arguendo*, that Opinion 598 is not otherwise modified, in light of apparent coverage of Docket No. G-13221, *et al.*, by ordering Paragraph (B) (p. 77), nevertheless, the Commission should clarify the status of those dockets by consolidating the dockets with

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AR61-2, *et al.*, AR69-1 or by entering an appropriate order in those dockets terminating them in accordance with the provisions of Opinion 598 and any modifications thereof.

19. Ordering Paragraph (E) of Opinion 598 fails to provide for reporting refund obligations under rate schedule filings made by others for a non-operator or co-owner having no rate schedule filing covering that interest, and thus no opportunity is afforded to work off such refund obligation pursuant to ordering Paragraph (G) of Opinion 598. The Commission should grant rehearing and convene a conference to determine the appropriate format for refund reports under ordering Paragraph (E) and adequate procedures for making the election provided in ordering Paragraph (G).

ARGUMENT

The public interest rate design alternative proposed by Amoco should be considered and adopted.

The Commission erred in not considering and adopting the affirmative rate design proposals of Amoco, which are consistent with the preponderant evidence and the mandates of *Austral*. Amoco urged that the Commission

not adopt the UDC settlement proposal because the incentives offered are demonstrably inadequate but recommended that the Commission establish adequate incentive prices in a decision on the merits with reasoned findings based on the substantial evidence in the record including a finding that no refund obligations should be imposed for past periods.

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The Commission's own Staff favored this basic approach. The principal grounds for Amoco's opposition to the settlement were that the "give-and-take" refund provisions not only continue the past inequity but create new inequity, and approval of a settlement peculiar to the Southern Louisiana Area will only delay, not foster, improved regulatory guidelines which should be promulgated upon this extensive record and which should be equally applicable to other supply areas.

Opinion 598 (p. 17) states that "The substance of their argument is that the rate design in the settlement proposal unlawfully discriminates . . ." whereas Amoco clearly urged (Initial Brief, p. 19) the Commission to forego the attempt, concededly impossible, to rectify past inequity even though Amoco individually was peculiarly aggrieved and to find that the refund provisions of the proposed UDC settlement are not in the public interest. Although ignoring Amoco's alternative rate design proposal, Opinion 598 proceeds (p. 18) to describe Mobil's alternative rate design proposal and then arbitrarily chooses the alternative rate design suggested in the UDC settlement proposal. The Commission apparently never recognized and certainly failed to deal with the best public interest alternative rate design of a decision on the merits based on the substantial evidence of record which supports adequate rate levels and no refunds for past

periods as proposed by its own Staff and urgently recommended by Amoco. Only certain of the Amoco arguments opposing the UDC settlement proposal were similar to Mobil's. Amoco was, and is, willing to live with the past consequences of inequity *if* the future will accord adequate, non-discriminatory and non-preferential rates and viable regulatory guidance, which as we show

[13,791]

herein, Opinion 598 fails to supply.

The Commission must reconsider its supply goal.

The Commission finds (p. 39) that a reasonable goal or target level of service for Southern Louisiana *jurisdictional* sales is 45 to 50 Tcf for the 1971-75 period, requiring dedications to the interstate market of approximately 60 Tcf in the same period. The Commission expresses its understanding (p. 33) that no party opposing the settlement argued for lower supply goals than projected by the witness Clark for production requirements of 9.5 Tcf in 1975 from the Southern Louisiana Area. Amoco (Initial Brief, p. 29) concluded that the short falls in meeting demand in the next few years will be greater than estimated by the witness Shantz (Ex. 21, Sch. 26). Mr. Shantz, utilizing the demand projections prepared by the Future Requirements Committee, scheduled Southern Louisiana production at 8.3 Tcf in 1975 (Sch. 42). The Municipal Distributor Group (Initial Brief, p. 69) called for ". . . some restraint on expansion of natural gas markets." The New York Public Service Commission made no argument, pro or con, relative to supply goals. Mobil's arguments (Initial Brief, p. 1) were limited to rate design.

The position of some parties supporting the settlement on the question of supply goals is vague or not stated in brief. The United Distribution Companies (Initial Brief,

p. 8) parenthetically projected a national demand increase of 4 Tcf for 1970-75 (which would be less than Mr. Clark's projection of 27.79 Tcf in 1975), but recognized (p. 65) ". . . that it would be unrealistic to predict that the rates contained

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in the settlement proposal will result in the finding and producing of all of the gas needed." The Pipeline Purchaser Group (Initial Brief, p. 12) set a target of 9.5 Tcf of production in 1975; this target is clearly for the Southern Louisiana Area, which includes an intrastate market of 2.2 trillion in addition to the interstate market. Staff (Initial Brief, p. 13) stated demand projections only on a national level but set Southern Louisiana Area supply goals of 9-10 Tcf per year in the 1971-75 period, which Staff termed "somewhat ambitious" (p. 16). Producers supporting the settlement (Initial Brief, p. 60) stated: "The recent breakout of Southern Louisiana Onshore potential gas reserves, the passage of time and reserves additions in 1970 have now shown the 'positive supply program' developed by witness Shantz to have been overly optimistic." Mr. Shantz' positive supply program (Ex. 21, Sch. 42) called for 38.6 Tcf of additions for the Southern Louisiana Area during the 1971-75 period, and 8.3 Tcf of production in 1975.

Thus, no party, either supporting or opposing the settlement and who articulated supply goals in arguments to the Commission, supported the Commission goals set out at page 39 of Opinion 598. To the contrary, it is quite clear that the expressed expectations of the parties are for supply goals substantially less than the goal set by Opinion 598. In light of the evidence and arguments

presented, Amoco urges the Commission to reconsider and set more realistic supply goals.

The best five-year record of reserves additions *in the Southern Louisiana Area* was 36.6 Tcf in the 1962-66 period (Ex. 21, Sch. 42). In the 1965-69 period, additions to interstate pipeline supply were 25.4 Tcf

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(Ex. 31-A, Sch. 2). Recently, reserves additions reported by the AGA for this area have averaged about 6 Tcf per year. The Opinion recognizes that commitments may lag discoveries (p. 24). Reserves uncommitted and available for sale in the area were 2.6 Tcf as of 12/31/69 (p. 24). Although the record contained evidence on response time to new incentives to explore for and develop new supplies, it is not apparent from Opinion 598 that such evidence was considered in arriving at the supply goal set for the 1971-75 period. Nor did Opinion 598 separately analyze or consider the needs of the *intrastate* market for new supply to be found in the area (p. 32).

The average unit revenue received by producers during the past decade for jurisdictional Southern Louisiana Area sales was about 20 cents per Mcf (subject to refunds) in current dollar terms (Ex. 91). The UDC settlement schedule of rates, which Opinion 598 approves, are ceiling rates subject to contract limitations (p. 78). Although Opinion 598 provides no estimate of current average revenues resulting from the ceiling rates imposed, the record evidence shows (Tr. 7684) that average revenues to producers would be 21.96 cents per Mcf, again expressed in terms of current dollars. In real dollar terms (accounting for inflation in the 1960's) the average revenue to be realized by producers will be *less* than during the period that resulted in a record 36 Tcf

reserves additions in a 5-year period in the Southern Louisiana Area. Thus, the substantial evidence of record shows that the settlement incentives are wholly inadequate to assure consumers the gas supplies projected as the goal of

[13,794]

Opinion 598. Amoco recognized and pointed out (Initial Brief, p. 35) that its rate design recommendations would not meet all projected demands for gas over the next five years, even with optimistic scheduling of alternatives to domestic gas.

In noting (p. 35) that only two witnesses, Dr. Foster and Dr. Khazzoom, tried to chart a course for price-supply relationships, the Commission implied that it would be inappropriate for a party in brief, as did Amoco, to examine and evaluate the record evidence on the subject. Amoco agrees that the problem is a difficult one and defies exact answers. Nevertheless, on the basis of a careful analysis of the substantial record evidence, Amoco concluded (Initial Brief, pp. 23-30) that domestic exploration and development expenditures for petroleum should increase from 0.6 percent to at least 1.0 percent of gross national product, or an increase of about 65 percent over recent spending levels. Opinion 598 did note the recommendation of Mr. Winger (p. 41) for an immediate increase in expenditure levels of about 50 percent with increases thereafter. Either of these estimates of needs, although reasonable approximations, is far in excess of that implied by the revenue realizations resulting from the adopted settlement rates in Opinion 598.

At page 46, Opinion 598 calls "particular attention" to Section 11 of the adopted settlement wherein approving producers individually represent that the rates

"should provide an incentive for a substantial increase in exploratory and developmental activities . . .". Amoco must state candidly that it realistically cannot even remotely connect these incentives to the goal of 60 Tcf for the *Jurisdictional market alone* when,

[13,795]

with lower costs and with much less inflation, producer activities resulted in only 36 Tcf for the *total market.* The producers supporting the settlement made it quite clear as noted, *supra* (Initial Brief, p. 60), that their analysis would support a supply goal much below that set by Opinion 598. It is also significant that Staff witness Engel, who termed the settlement "consistent with my rate design" (Tr. 6795), relied on the Shantz demand-supply projections to 1975 (Tr. 6797).

At page 33 Opinion 598 states "Therefore, we will not make our future task more difficult by setting supply goals which, if they are later not met, will lend a false credence to the negativism about our resources capability which is already spreading widely." Yet, at page 39, Opinion 598 did set goals, and approved the proposed settlement rates and provisions despite the substantial evidentiary record reflecting such goals to be unrealistic. The Commission has done exactly what it cautioned against—set goals that realistically cannot be met with the inadequate ceiling price levels, the refunds imposed, and the other restraints of the settlement provisions adopted that will be effective beyond the forecasted period because of the excessively lengthy moratorium.

As shown above, the consequences of the supply-demand goals set by Opinion 598 are not realistically attainable at the inadequate rate levels prescribed. Nowhere does the Opinion examine the probable conduct and perform-

ance of the industry if these demand-supply goals are met.

[13,796]

Consequences of Opinion 598 supply goals.

The Commission is to be commended for stating its supply objectives. These objectives, in general terms, are as follows:

> "Our minimum objective has to be action to halt and hopefully to reverse the downward trend of the reserves-to-production ratio." (p. 31)

It is presumed that this objective is ultimately applicable to all areas as well as currently applicable to the Southern Louisiana Area. At p. 39 the Opinion relates the required reserves dedication to the targeted sales level "while maintaining deliverability." While it is presumed that this objective of maintaining deliverability is specifically applicable to the Southern Louisiana Area, it is not clear whether this objective is to maintain current deliverability levels or some other lower, but still satisfactory, deliverability.

A. *Reserves-to-Production Ratios*

It is not now possible to precisely translate the goals of 45-50 Tcf jurisdictional sales and approximately 60 Tcf new reserves commitments in the 1971-75 period into a reserves-to-production ratio trend through 1975. First, the goals relate only to jurisdictional sales and new reserves commitments. Jurisdictional sales and new reserves commitments for 1970 were not in the record nor are they yet available from Form 15 reports. However, for the total Southern Louisiana Area (jurisdictional and non-jurisdictional) the AGA Reserves Committee reported 1970 reserves additions of 5.66 Tcf, far below the average annual goal of approximately

12 Tcf commitments to the jurisdictional market. Uncommitted reserves available for sale in Southern Louisiana were only 2.6 Tcf at the end of 1969 (p. 24) and could not have materially changed through 1970. The non-jurisdictional market is expected to grow and reach 2.2 Tcf in 1975 (Tr. 980). It must be anticipated that this market will be able to acquire adequate reserves to service its demands. Since the Commission clearly intended (p. 32) to consider and match markets with supply on the area basis, it is possible that it misstated the goals set at p. 39 as applicable only to the jurisdictional sector. Assuming that the goals set by the Commission were applicable to the *area* and could be met, the resultant reserves-to-production ratio at year-end 1975 would be about 9.4 to 9.9. Thus, contrary to its stated objective of halting and hopefully reversing the downtrend in the reserves-to-production ratio, the sales and reserves targets set will, if met, only result in further decline in the ratio in the Southern Louisiana Area.

In Opinion 595 (p. 12) the Commission noted the decline of the reserves-to-production ratio to 11.9 in 1970 and commented:

> ". . . to assure economically efficient use of existing pipeline and distribution facilities, we must have satisfactory deliverability. Satisfactory deliverability is virtually impossible to achieve, we now know, if R/P ratios are much below present levels.[9]

[9] Witness curtailment proceedings: United Gas Pipeline Co., Docket No. RP71-29, Northern Natural Gas Co., Docket No. RP71-89, Natural Gas Pipeline Co. of America, Docket No. RP70-42. Witness also emergency purchases of over 141 billion cubic feet of gas by 14 pipelines authorized by our Orders Nos. 402, May 6, 1970; 402-A, June 3, 1970; and 418, December 10, 1970."

Amoco is aware that the nationwide reserves-to-production ratio is not necessarily related to deliverability in Southern Louisiana. However, the curtailment proceedings and emergency purchases referred to do involve some Southern Louisiana pipelines. The reserves-to-production ratio in the Southern Louisiana Area, derived from the AGA Reserves Committee reports, was 10.8 in 1970. Thus, certification of additional sales in the amount projected from the area for the period 1971-75 will result, even assuming the targeted reserves commitments could be forthcoming with the inadequate incentives offered, in continued curtailments and inefficient utilization of facilities for the Southern Louisiana Area.

Amoco believes that the Commission's announced objective to halt the decline in the reserves-to-production ratio is a bare minimum objective because of the consequences already apparent. Therefore, the Commission must reconsider not only the goals of the requirements to be met and the reserve commitments necessary, but especially the adequacy of the rate incentives offered.

B. *Deliverability*

As stated above, we do not know precisely what the Commission meant by "maintaining deliverability" (p. 39), as a measure of the quality of service. Generally, in dealing with individual pipeline supply situations one factor considered has been the pipeline's deliverability life. Concededly, it is more difficult to consider the deliverability life for a supply area such as the Southern Louisiana Area. This area provides a major portion of the supplies for some of the twelve interstate pipelines and for the

[13,799]

intrastate market, with each pipeline having its own unique market, supply and deliverability situations. Deliverability was dealt with in the testimony and exhibits of the pipeline group witness Gruy. For clarification, it was not the producer group who sponsored Mr. Gruy, as indicated at page 14 of Opinion 598.

Mr. Gruy presented the requirements for new gas reserves for the period 1970-77, which he testified are necessary as a minimum to support the future market requirements projected from the Southern Louisiana Area by pipeline group witness Clark (Tr. 1804). The "minimum" requirement was defined as a static deliverability life of 2 years which provided only a marginal degree of safety to assure that peak day requirements could be met. The "peak day" requirements were equated to a 90 per cent load factor (Tr. 1832). From Exhibit 28, p. 14, the two-year static deliverability is shown to be equivalent to 2 percent excess of all available productive capacity.

Mr. Gruy's study did provide a relationship between the reserves-to-production ratio and the static deliverability life for the Southern Louisiana Area on a composite basis (Ex. 28, p. 2) as follows:

Thus, Mr. Gruy's "bare minimum" is reached when the Area reserves-to-production ratio and the static deliverability life for the Southern Louisiana Area on a composite basis (Ex. 28, p. 2) as follows:

Reserves-Production Ratio	Static Deliverability Life-Years
10.79	5.30
10.37	4.10
10.24	3.00
10.14	2.80
10.05	2.60
9.95	2.40
9.84	2.20
9.78	2.00

Thus, Mr. Gruy's "bare minimum" is reached when the Area reserves-to-production ratio is slightly below 10. But as we have shown *supra*, the

jurisdictional sales and new reserves commitment goals set by Opinion 598, even if revised to area goals, will result in an area reserves-to-production ratio in 1975 of 9.4 to 9.9. It should be noted that as demonstrated by the above relationship, would indicate that, with the current area reserves-to-production ratio, there should be adequate excess productive capacity; however, in fact, some area pipelines presently are curtailing deliveries.

Cross-examination established that historic purchaser takes in the area have been less than the 90 percent utilized in the Gruy study (Tr. 5300). Also, the Gruy study did not allow for the effect of variations in annual additions to reserves, such as has been actually experienced. A below average year of reserves additions could easily wipe out the 2 per cent excess capacity considered a bare minimum (Tr. 5304). In addition, the study did not allow for the productive capacity utilized in cycling operations (Tr. 5306). Further, the study did not allow for down time due to offshore storm or storm alerts (Tr. 5309), even though much of the future reserves addi-

tions projected are from the offshore area. Significantly, the study did not allow for time lags, such as delays in offshore lease sales (Tr. 5323). These observations are not made to be unduly critical, but to emphasize as the evidence shows that some capacity, above a bare minimum, must be maintained to allow for contingencies if requirements are to be reasonably met.

We do not expect the Commission to make a finding that it intends to maintain "x" years deliverability life in the Southern Louisiana Area.

[13,801]

However, it is obvious that if gas deliveries from the area are to increase, and substantial increases are now targeted by Opinion 598, additional pipeline facilities will necessarily have to be certificated, and on some showing of reserves and deliverability by the pipelines. Amoco respectfully suggests therefore that the Commission on rehearing can be more explicit as to the objectives of its Opinion as they relate to its supply goals. Amoco also respectfully urges that the Commission reconsider the supply goals in light of the incentives prescribed in Opinion 598 and explain the consequences to the industry of those goals.

Opinion 598 Provisions for Refunds and the Discharge thereof are Inequitable and Unlawful.

The Commission has not given an appropriate rationale and cannot lawfully justify acceptance of the proposed settlement as to provisions for refunds and discharge of refund obligations (pp. 66-69). The evidentiary record shows past rate realizations were not excessive and thus there is no support for the imposition of

refunds in the Southern Louisiana Area over what have already been ordered in interim proceedings. A Staff witness recommended no refunds for past periods as did Amoco in brief. The refund forgiveness approach adopted by Opinion 598 does nothing for consumers, but does complicate, compound and extend past inequitable regulatory treatment into the future, creates undue discrimination and preference and unfair competition among producers, creates undue preferences and advantages to some pipelines in competing for new supplies, creates undesirable regulatory precedents and complex new administrative problems

[13,802]

(Initial Brief, pp. 15-23). Opinion 598 neither deals with nor answers any of the basic objections made by Amoco in its brief and its response opposing the UDC settlement proposal.

In Opinion 598 the Commission found 26 cents to be the just and reasonable rate for post-October 1, 1968 contracts up to 10-1-74 and then 27 cents (p. 59). Any special exemption requires that the applicant individually justify an increase before he is even allowed to file for it (p. 70). Nonetheless, in providing for discharge of refund obligations, created by what it terms past excessive rates, the Commission describes the provision as an incentive (p. 69). Thus, 26 cents is the incentive price to some producers and 26 cents *plus* (being some unknown amount) is the incentive accorded to those producers who have not and do not have to justify to the Commission the extra incentive created in a negotiated settlement among some of the parties that forgives what the Commission now finds were *above* just and reasonable rates. Furthermore, by virtue of the earned escalation provisions applying to flowing gas (p. 63) these lat-

ter producers also will benefit from the reserves committed by the former producers limited to the 26 cent ceiling while their reserves commitments are reducing only their individual refund obligation. In its Initial Brief, Amoco recognized that all past inequity cannot be resolved. However, Opinion 598 unduly discriminates and prefers certain producers over others similarly situated and creates serious inequities for the future violative of the Natural Gas Act, the Commission's own policies and precedents and of the Fifth Amendment to the Constitution of the United States.

[13,803]

The only justification the Commission has advanced for the refund credit is that "We find such an incentive will be of net benefit to the consumer, by obtaining additional gas supplies" (p. 69). But, realistically, this provision calls at most for the commitment of only 15 Tcf of new reserves over seven years. Yet, the Commission's target for new commitments over the next five years is set at 60 Tcf (p. 39). Thus, it appears unrealistically that the Commission is loooking to those who will receive the 26 cent *plus* incentive to commit 15 Tcf and those producers who will receive only 26 cents to commit 45 Tcf. If the Commission is desirous of using an additional or *plus* incentive to aid in meeting its supply goal, it should properly make that extra incentive available to all producers, including those new entrant producers which the Commission hopes to attract (p. 45). More appropriately, the necessary incentive should be given in the ceiling rates for flowing and new gas. The Commission said it adopted the settlement because of "the broader acceptability of the UDC proposal with the Distributor Group . . ." over an alternative proposed by

Mobil ignoring the fact that the Distributors are not affected by the serious inequities and undue preferences of the scheme (p. 18). It is interesting that UDC (Initial Brief, pp. 58-59) stated "Clearly, no refunds should be required . . . . Exhibits 56 and 93 show the refunds would be inappropriate. . . ." Thus, the Commission did not consider the alternative of just and reasonable rates based on findings supported by the record in a decision on the merits with no refunds for past periods as recommended by Amoco, and by its own Staff.

[13,804]

Opinion 598, purporting to follow the law of *Austral*, discusses the consequences of its order on the industry (pp. 39-46), including capital formation and capital available to the industry, competition among producers, and the impact of prices on consumers. However, *Austral* (Mimeo, p. 64) required: "With regard to conduct and performance, the Commission must assess how circumstances other than structure and capital will affect the orderly development of the industry." It seems apparent that the Court did not mean to limit the inquiry to the producing segment of the "industry." As Amoco has pointed out (Initial Brief, p. 20), the refund credit provisions will ". . . create undue discrimination among pipelines competing for new reserves, promote pipeline inefficiencies . . . ." The refund discharge provisions of Opinion 598 give preferential treatment in the commitment of new reserves to the pipeline to which the refund would have otherwise been paid. Where cash refunds have been ordered, it has been Commission policy to "flow through" jurisdictional refunds to distributors so that pipelines would not expect to directly benefit by cash refunds. However, by virtue of the settlement provisions adopted in Opinion 598, a few pipelines will re-

ceive undue preferential advantage over their competitors for new supply. This result is neither a lawful nor desirable consequence of Opinion 598. Furthermore, the pipeline receiving this benefit does not have to show either need for the reserves or the ability to receive the gas into its facilities. Such pre-determined right to new gas commitments can only promote inefficient utilization of facilities and cross-hauling from the yet unknown location of the new reserves.

[13,805]

The Opinion 598 rationale for accepting the UDC settlement is not supported by the findings or substantial evidence and the Commission should reconsider its action. At page 69 of Opinion 598 the Commission states:

> "Opinion No. 546 did not afford an adequate return and it understated the requirements for exploration and development."

Nevertheless, Opinion 598 proceeds to adopt provisions to extract $150 Million additional refund obligations for past periods despite the repressive rates and inadequate revenues during those periods. But, as Opinion 598 observes (p. 4), Opinions 546 and 546-A rates never were made effective and have now been modified by Opinion 598. Thus, what the Commission obviously meant, and what the record shows, is that *existing* rates did not provide producers adequate returns nor provide adequate incentives for exploration and development. Surely the imposition of additional refunds is not reasonable or supportable on the record. As Amoco stated in Initial Brief, it is impossible to undo what has been done because of the filed rate doctrine. However, it would seem that the least that the Commission can now do as a matter of

fundamental fairness is to refuse to impose further refund obligations for past periods.

Should the Commission, nevertheless, feel obligated to set rates or refund levels for past periods, it must reconsider those it did set in light of their deficiencies. Opinion 598 (p. 69) refers to the rates of 20.625 cents and 21.25 cents as a base for refunds. But these are ceiling rates, and in no way a measure of the average revenues producers will realize because of contract limitations. The record clearly shows that

[13,806]

producer revenues actually received during the designated periods were well below these "base" rates even before the $150 Million refunds are extracted.

It is for these reasons that Amoco recommended a 26 cents per Mcf ceiling for contracts dated prior to October 1, 1968. No refunds of past and clearly inadequate rates would be required; the average producer current unit revenue under this ceiling would be but 22.84 cents (Ex. 106). A flowing gas ceiling of 26 cents would only amount to approximately a 15 percent increase in unit revenues collected by producers over the past decade (Ex. 91), which does not even make up for the inroads of inflation. Thus, Amoco's rate recommendations are far from being a "what the traffic will bear" approach. It is quite clear that regulatory policies and negative attitudes in the 1960's substantially affected the pricing provisions of contracts executed during that period so that realistically little can be done now to provide adequate flowing gas rates for the remaining reserves dedicated under old contracts. The Commission has substantial evidence before it (see references to the record in Amoco's Initial Brief,

pp. 30-48) to justify setting a just and reasonable rate level for flowing gas at 26 cents per Mcf, which would in some measure rectify the repressive rates and regulatory policies of the past, and more importantly, give gas producers the increases in cash flow from sales of their existing gas inventories to replenish them and also add to the domestic gas supplies.

[13,807]

Footnote 77 of Opinion 598 should be clarified.

We suggest that the Commission should reconsider and clarify certain questionable recitals in Footnote 77 of Opinion 598. Although not of controlling significance in these proceedings, Footnote 77 on pages 24-25 of Opinion 598 contains misstatements, omissions, and possibly misleading statements that could detract from the point the Commision sought to make. It is true that certain physical factors in the formula (for estimating the thousand cubic feet of gas per acre foot of a structure) are measurable, but such measurement is usually made with very minute samples. For example, the shrinkage or deviation factor determination is usually made using approximately a one-gallon sample from a reservoir containing 100 or more billion cubic feet of gas; porosity may be determined from samples approximately 4 inches in radius, whereas the drainage radius of a well may be 2,680 feet. Thus, the determination of these physical factors for an entire reservoir from minute samples requires a high degree of professional skill and judgment. The factors as stated, and the formula as given, to derive Mcf/Acre Foot erroneously include net pay (h) as a factor, or alternatively, if net pay is included in the formula the result must be stated in terms of Mcf/Acre. Omitted from the discussion is the recovery factor. Recovery factor, and ultimate recovery, are normally related to technological

and economic criteria. Determination of the recovery factor, particularly for new reservoirs, requires wide professional experience and careful judgment. After reservoirs have been producing for some time, information becomes available to employ other methods of estimating recovery, which may result in revisions to the volumetric method of estimation initially employed.

[13,808]

The Btu gap is unjust and should be eliminated.

Opinion 598, at p. 65, without comment, reasoned findings, or evidentiary support approves the provisions of the proposed settlement providing for proportionate adjustments downward from 1,000 Btu per cubic foot, and upward from a level of 1,050 Btu. The settlement proposal adopted these provisions from Opinions 546 and 546-A, where there likewise was no testimony in support. Inexplicably, at the same time Opinion 598 proclaims that Opinions 546 and 546-A now perform no office (p. 6). In Opinion 546, the Commission purported to justify the Btu gap, aside from the measurement burden, on the unsupported statement ". . . since we are limiting downward adjustments to gas with less than 1,000 Btu's, it is only equitable to limit upward adjustments to gas which is materially higher than average in Btu content" (p. 92).

In Opinion 546 the Commission chose to let quality standards be governed by contract provisions for existing sales and in accepting the settlement Opinion 598 extends this holding to new sales, except for the Btu adjustment provisions. Rationally, if gas is sold because of its heating value and the Commission chooses to reduce prices for gas below a standard of 1,000 Btu because it is less valuable, then it should follow that, if the gas contains

an excess of 1,000 Btu's, it should be proportionally and not disproportionally more valuable. There is no valid reason advanced why gas having 1,010; 1,020; or 1,049 Btu should be considered to have the same value as 1,000 Btu gas. We can see nothing but inequity in denying producers adjustment for above standard Btu when he

[13,809]

is penalized downward from the standard. Significantly, the Supreme Court indicated support when it said "We agree that the Commission might have dealt more clearly with these questions" (*Permian*, Fn. 91). The provision for the 50 Btu gap constitutes an unlawful deprivation of producers' property without just compensation and a denial of due process of law. Most importantly, this arbitrary finding in Opinion 598 is contrary to the Commission's announced basic objective of securing more gas for the interstate market, since, if not paid therefor, producers ordinarily will extract the extra Btu's above 1,000 and thereby reduce the volume of gas going interstate.

The treatment accorded Bastian Bay is unlawful and Opinion 598 must be modified.

Despite the fact that Amoco is the third largest producer in the country and in the past has demonstrated its ability to find and commit gas supplies from the Southern Louisiana Area to the interstate market, the impact of Opinion 598 is particularly unduly discriminatory and inequitable to Amoco. Ignoring the serious inequities of the past, Opinion 598 offers Amoco for the future lower gas supply incentives than those accorded most other producers. Inexplicably, Amoco is further grossly discriminated against and placed in undue jeopardy as to potential refund liability by expressly excluding Bastian Bay from the incentives and related provi-

sions afforded by Opinion 598 to other producers with refund obligations in the Southern Louisiana Area.

[13,810]

On reconsideration, the Commission is urgently requested to modify Opinion 598 to assure fair, equal and nondiscriminatory treatment of all producers in the Southern Louisiana Area by expressly providing that if the *Bastian Bay Field* (Docket No. CI66-910) proceedings are ultimately decided by applying cents per Mcf rates to gas delivered and to be delivered to the interstate pipeline involved, the principles of Opinion 598 shall apply prior to October 1, 1968, as well as after that date. For a detailed showing of its equitable and legal entitlement to such consideration because of its unique posture, Amoco adopts, as if set forth in full at this point, the "Response of Pan American Petroleum Corporation to Motion for Promulgation of Settlement Proposal" dated December 11, 1970, and duly filed herein. Because Amoco had reduced rates in effect on September 30, 1968, due to its entering into a settlement of its rates pursuant to Commission policies and rate guidelines, Opinion 598 requires Amoco to assume through reserve commitments the burden of others who are allowed to retain higher rates and avoid refunds, which is unduly discriminatory and otherwise unlawful.

The pipeline tracking provisions of Opinion 598 are comparably unduly discriminatory and otherwise unlawful.

CORRECTIONS REQUIRED TO APPENDIX B TO OPINION 598 WHICH SPECIFICALLY RELATE TO AMOCO PRODUCTION COMPANY DOCKETS

PART III

Section 4(e) Dockets Consolidated with the Initial Docket No. AR61-2 Proceedings: The Section 4(e) Dockets

still consolidated with the AR69-1, *et al.*, proceedings are as follows.

Delete "Pan American Petroleum Corp. (Oper.), *et al.*, Dockets RI62-359, RI63-389" as these were terminated effective January 1, 1966, by Order of

April 13, 1966, aproving company-wide settlement in Docket No. G-9279, *et al.*

PART IV

Section 4(e) Dockets not Consolidated in the Initial Docket No. AR61-2 Proceedings: Opposite Amoco Production Company

Delete Docket No. "RI64-234" as it was terminated effective January 1, 1966, by the aforesaid Order of April 13, 1966, in Docket No. G-9279, *et al.*, and

Add Docket Nos. RI171-638, RI71-1148, RI71-3.

PART V

Pending Section 7(c) Certificate Applications: Opposite Amoco Production Company—

Delete Docket No. CI67-840, which was withdrawn March 8, 1967;

Delete Docket No. 67-541, which is not Amoco but Texas Gulf Sulphur; and

Add Docket No. CI71-764.

Application of Amoco Production Co. for Rehearing

WHEREFORE, for the reasons stated, Amoco prays that the Commission grant rehearing of its Opinion 598 and accompanying orders and that upon reconsideration it vacate, reverse, modify or set aside the same so as to correct the errors herein specified.

Respectfully submitted,

AMOCO PRODUCTION COMPANY

/s/ T. C. McCorkle
T. C. McCORKLE
P. O. Box 591
Tulsa, Oklahoma 74102
Its Attorney

Dated at Tulsa, Oklahoma

August 11, 1971

[13,825]

PETITION FOR REHEARING

Comes now the Municipal Distributors Group [1] and respectfully petitions the Commission to rehear and reconsider its Opinion No. 598 and accompanying order issued July 16, 1971 in the above causes.

This Petition is based upon the following errors in the Commission's Opinion:

1. The Commission erred in its fixing of rates for gas committed to contract prior to October 1, 1968 at levels substantially in excess of the cost of service, including a reasonable return, relative to such gas. In reaching its conclusions concerning the rates for "old" gas, the Commission erred in finding that rates for such gas, substantially in excess of its costs, were necessary to provide adequate incentive to producers to explore for and develop new reserves in the South Louisiana area. The Commission also erred in finding that the revenues allowed for such gas in excess of the costs thereof were essential to provide the producing industry with sufficient capital for an adequate exploration and development effort.

[13,826]

2. The Commission erred in its treatment of refunds of that portion of rates collected for "old" gas which

[1] The Municipal Distributors Group (MDG) consists of the Memphis Light, Gas and Water Division, the American Public Gas Association (APGA), and the Tennessee Valley public systems of Dyersburg, Givson County Utility District, Humboldt, Jackson, Brownsville, Covington, Tipton County Utility Company, Inc., Crocket Utility District and Bells Utility District, Tennessee. The APGA consists of 225 publicly owned gas distribution systems located throughout the United States. The positions expressed herein have been approved by unanimous votes at the association's duly authorized meetings.

have already been collected by the producers and which were heretofore found by the Commission to be in excess of just and reasonable rates. In reaching its conclusions concerning refunds of such excessive rates, the Commission erred in its findings that such refunds were necessary to provide the producing industry with sufficient capital to enable it to perform its functions adequately, and erred in approving a refund formula which discriminates against producers whose rates in the past have followed the Commission's suggestions, and in favor of those producers whose rates in the past have been most excessive, and discriminates against new producer entrants into the South Louisiana area, and provides for the favored producers great competitive advantages over other producers.

3. The Commission erred in retroactively modifying the rates and refunds ordered in its Order and Opinion Nos. 546 and 546A in Docket AR61-2, after those rates and refunds had been found by it to be just and reasonable and affirmed by the United States Court of Appeals for the Fifth Circuit.

4. The Commission erred in adopting and promulgating a settlement proposal which was not agreed upon by the parties.

5. In addition to the above errors, the Commission in its Opinion erred in the following particulars:

(a) By rejecting, at Paragraph 11 of its Opinion, all of the findings, conclusions and orders of Opinion Nos. 546 and 546A as now performing "no office" in the prescription of just and reasonable rates;

(b) By adopting, at Paragraph 38, the admittedly inequitable and discriminatory refund provisions of the United Distribution Company's settlement proposal, rather than "a procedure for

retrospective achievement of equity among the Southern Louisiana producers, "on the grounds of the "broader acceptability of the UDC proposal with the Distributor Group."

(c) By rejecting, at Paragraph 45, the significance of the discrepancy between the reserve figure of 24.1 TFC provided by the Reserve Committee of the American Gas Association for off-shore Louisiana, and the figure 34.1 TCF, composited by the Staff from the pipelines' Form 15's, on the grounds that such discrepancy is not shown to affect the calculations of "new" gas costs, where the Commission further found, at Paragraph 56, that, for the purpose of costing the gas, "the data on reserves is used to determine productivity, or number of Mcf of gas per foot of drilling,"

(d) The Commission erred by rejecting, in Paragraphs 55-59, the petition of the APGA to reopen the proceedings, filed on June 25, 1971 and supplement thereto filed on July 14, 1971.

(e) The Commission erred in finding, at Paragraph 58, that there are, for the purposes of these proceedings, no significant differences between the level of reserves reported by the American Gas Association and that reported by the pipelines' Form 15's.

(f) The Commission erred in finding, at Paragraph 59, that "The AGA data is reasonably reliable for the purposes herein used," and in refusing in its Order of December 15, 1969 to obtain necessary data, as requested by its staff.

(g) In finding, at Paragraph 51, that there is "a critical shortage of gas in the United States," in the face of the uncontroverted evidence in the record that there are ample supplies of gas reserves in the United States and off-shore areas, and

[13,828]

that the shortage is restricted to the proven reserves, as reported to the AGA, which are available for sale to interstate pipelines, and by failing to attach any significance to the reserves and R/P ratios shown by the pipelines' Form 15's with respect to the Louisiana Federal Domain, despite the figures shown on Page 28 of the Opinion indicating a consistent increase in year-end reserves between 1963 and 1969, amounting to an approximate doubling of proven reserves during that period, and indicating an R/P ratio of 18.5 to 1 in the Louisiana Federal Domain.

(h) By finding, at Paragraph 72, that the producers' evidence as to the decline in drilling activity shows a 28-year low, where the cited Exhibit 21, Sch. 8 fails to support the finding, and the only support is an ambiguous footnote in the Initial Brief of the major producers.

(i) In finding, at Paragraph 92, that "there has been, in recent years inadequate capital formation in the natural-gas producing industry."

(j) In adopting, at Paragraph 101, the "test of a price equal to but no higher than the level required to bring forth the necessary supply, "where findings have already been made in Paragraph 90, that "the evidence cannot persuasively indicate the amount of new gas reserves that would be discoverd

in Southern Louisiana as the result of any specfiic rate," and at Paragraph 91, that "no reliable quantitative forecasts may be made by increments of additional gas supply resulting from specific increased gas prices."

(k) In finding, at Paragraph 105, "that there should be no increase in market concentration among the sellers of natural gas as a result of our Orders herein," and that the "findings herein

[13,829]

should attract new entrants to the industry, and that the Orders herein should have an overall tendency to be procompetitive."

(l) In finding, at Paragraph 121, that productivity estimates "should cluster around 600 Mcf per foot drilled"; which finding relies upon, (a) 1970 productivity figures, which are grossly affected by the negative revisions and extensions of 1460 billion cubic feet, resulting from an earlier admitted error in the AGA computations, and (b) an average of the drilling results for the 25-year period from 1946 to 1970, which ignores the tremendous improvements in technology during that period; and such finding ignores the admitted productivity figure of 723 Mcf per foot drilled as an average for the 1964-1968 period.

(m) In finding, at Paragraph 124, that the "zone of reasonableness of rate of return is within the range of 13% to 16%," and that 15% return is just and reasonable.

(n) In finding, at Paragraph 140, that there are higher costs and risk factors in the off-shore area; such finding is immaterial and irrelevant in the ab-

sence of evidence as to the productivity of drilling in the off-shore area which would permit a determination of unit costs, and such evidence is totally lacking in this record.

(o) In establishing, at Paragraph 146, October 1, 1968 as the date of division between earlier and later vintages of gas, where there is no finding to support such a conclusion, and no justification for fixing such a date nearly three years prior to the decision in this docket.

[13,830]

(p) In concluding, at Paragraphs 149, 151 and 155, that it is proper for customers to furnish to the producers, in addition to the cost of the "old" gas, further revenues to provide for replacement of currently produced gas, to assure a cash flow to meet the needs for a heightened exploration and production effort, and to make flowing gas cost bear a part of the responsibility for further exploration; the effect of which findings is to require customers to pay to the producing industry rates which not only assure a return of capital and a return on capital, but also to contribute a substantial part of the capital itself.

(q) In finding, at the same paragraph, that rates for gas already committed to contract, and in large part already delivered and sold, are inadequate when they provide only for the recovery of all costs of exploration and production, plus a reasonable return on investment, which return has been computed so as to fully compensate for all of the risks involved in finding and producing such gas and to equal the return on investments of similar risk elsewhere.

(r) In finding, at Paragraph 150, that a complete absence of any increase in the unit cost of flowing gas since 1960 "begs the question" at issue in the present case, where the Commission has raised the prices from 17.6% to 25.7% higher than those which it had found to be just and reasonable, based on the Test Year 1960 adjusted.

(s) In determining, at Paragraph 153, that the exploration and development costs for "old" gas, including large quantities sold prior to 1961, should be determined on the basis of Questionnaire responses by producers in which producers

reported, after the fact, and with no supporting company records, which of their dry holes drilled in 1969 were "directed" towards oil and which towards gas.

(t) In concluding, the Paragraph 157, that "old" gas from the off-shore area should be only one cent per Mcf less than the on-shore rate, despite the fact that the on-shore gas rate covers a 2.3 cent severance tax which does not apply to the off-shore gas.

(u) In deciding, at Paragraph 167 to eliminate the pricing distinction between casinghead gas and gas-well gas, thereby reversing its treatment of such gas found in its Permian Basin Opinion No. 468 and its first Southern Louisiana Opinion No. 546.

(v) In finding, at Paragraph 171, that Opinion No. 546 did not afford an adequate return and that it understated the requirements for exploration and development.

(w) In approving, at Paragraph 171, a computation of refunds for the period between October 1, 1968 and January 1, 1971, arrived at by applying a factor of 30.5% to the difference between revenues for such period based on rates in effect prior to October 1, 1970 and the revenues which would have resulted for that period through the application of rates established in Opinion Nos. 546 and 546A, as modified by Opinion No. 567; such computation being no more than a means of arriving at an arbitrarily selected total refund figure of $150,000,000.00, and being unrelated to any other findings or conclusions on this record.

[13,832]

6. The Commission's Opinion No. 598 and Order is not based on substantial evidence, is contrary to the evidence of record as a whole, is not based on adequate findings of fact, is arbitrary and capricious and denied the petitioners a fair hearing and due process of law.

7. The Commission erred in revising rates retroactively, following judicial affirmances thereof and in depriving the purchasers of natural gas of refunds to which they are entitled as a matter of law.

8. The Commision acted arbitrarily and abused its discretion by depriving the purchasers of natural gas without any evidentiary support and without any support in justice and equity, of refunds to which they are lawfully entitled.

[13,833]

WHEREFORE, the Municipal Distributors Group applies for rehearing and reconsideration of the Commission's Opinion and Order No. 598 and prays that same

be revoked, and that the findings, conclusions and orders of Opinion No. 546 with respect to flowing gas be reinstated and adopted, and the refunds and rate reductions therein ordered be reaffirmed in these proceedings, and that just and reasonable rates be fixed for new gas contracts.

Respectfully submitted,

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Attorneys for the Municipal Distributors Group

August 13, 1971

[13,866]

[Caption Omitted]

PETITION TO INTERVENE AND APPLICATION FOR REHEARING OF THE FUELS COMMITTEE OF THE FLORIDA MUNICIPAL UTILITIES ASSOCIATION

The Fuels Committee of the Florida Municipal Utilities Association ("Fuels Committee") on its own behalf and on behalf of the Utilities Departments and Cities of Fort Pierce, Gainesville, Homestead, Kissimmee, Lakeland, Sebring, Starke and Tallahassee ("Cities") pursuant to Section 15 (a) of the Natural Gas Act, as amended, and Section 1.8 of the Rules of Practice and Procedure ("Rules") of the Federal Power Commission ("Commission") petition the Commission to enter an order permitting their intervention in the above captioned proceeding; and further, pursuant to Section 19 (a) of the Natural Gas Act and Section 1.34 of the Rules of Practice and Procedure of the Commission, hereby apply for rehearing, by petition under oath, of the Commission's Opinion and Order Determining Just and Reasonable Rates for Natural Gas Produced in

[13,867]

the South Louisiana Area (Opinion No. 598), issued in the above-entitled proceedings on July 16, 1971.

PETITION TO INTERVENE

In support thereof the Cities respectfully show the following:

1. Petitioners

a. The petitioners consist of the Fuels Committee of the Florida Municipal Utilities Association, J. H.

Phillips, Chairman, General Manager, Sebring Utilities Department, 213 South Commerce Avenue, Sebring, Florida, and the Committee consists of Mr. Phillips and the following: J. P. Smith, Power Plant Manager, Fort Pierce; John R. Kelly, Director of Utilities, Gainesville; Gordon W. Ivey, Superintendent of Utilities, Homestead; Roy Hansel, Director of Utilities, Kissimmee; C. D. McIntosh, Director of Utilities, Lakeland; Clifford C. Blaisdell, Utilities Manager, Lake Worth; J. T. Beasley, Director of Utilities, New Smyrna Beach; Les Murdock, City Manager, St. Cloud; George Graudon, Plant Superintendent, Starke; and Joseph B. Dykes, Jr., Superintendent of Utilities, Tallahassee.

b. Correspondence in regard to this petition should be addressed as follows:

Mr. J. H. Phillips, General Manager
Sebring Utilities Department
213 South Commerce Avenue
Sebring, Florida 33870

[13,868]

George Spiegel, Esq.
James F. Fairman, Jr., Esq.
Suite 312
2600 Virginia Avenue, N. W.
Washington, D. C. 20037

2. Interest of the Petitioners

a. The Committee is comprised of the managers, superintendents of the utility plants of systems, or designated city officials of the above named Cities. Its function is to represent the interests of the Cities in such efforts as are appropriate to the procurement of and maintenance of adequate, reasonable cost fuel supply, in-

cluding natural gas supplies purchased from Florida Gas Transmission Company ("FGT") and Florida distributors, for the use by the Cities in the generating of power and the furnishing of electric service to the Cities' residents and consumers.

b. Each of the municipalities represented on the Fuels Committee own and operate electric generating facilities and electric distribution systems serving within and around their respective communities.

c. All the municipal systems purchase natural gas for use as fuel for the generation of electricity. The Cities purchase substantial quantities of natural gas under direct, interruptible sales agreements from FGT, the pipeline subsidiary of its distribution parent, Florida Gas Company ("Florida Gas"). Three systems,

[13,869]

Lake Worth, New Smyrna Beach and St. Cloud, purchase their natural gas requirements under interruptible service agreements with Florida Public Utilities Company, South Florida Natural Gas Company and Central Florida Gas Corporation respectively, who are in turn supplied by FGT.

d. FGT purchases substantial quantities of natural gas from the South Louisiana area for sale in Florida.* FGT, by virtue of certificates granted by the Commission has a complete monopoly on the transmission of natural gas in Peninsula Florida, and, in each case, by virtue of this monopoly and the policies of FGT restricting gas distributor resales to large industrial users, the

* Sales By Producers of Natural Gas to Interstate Pipeline Companies—1969, FPC S-208. Florida Gas Transmission, FPC Form 2, 1970.

Cities buying from FGT have no practical alternative supplier of natural gas for the generation of electricity. Each city purchases its gas supply from FGT under long term contracts each of which contains at the insistence of FGT substantial minimum take-or-pay provisions and a fuel oil adjustment clause ("FOA") which escalates the monthly price of gas at the average posted price of Bunker C fuel oil at either the Port of Tampa or the Port of Jacksonville. The posted prices of fuel oil had an unexpected and extraordinary increase in 1970 and, as a result, the prices paid by the Cities, and other industrial users,

[13,870]

have escalated more than 70%. Seven of the Cities have experienced an average increase in gas rates from 3.42¢ per therm in April 1970 to 6.01¢ per therm in December 1970, and which have remained at this level and represent an annual revenue increase of approximately $4,200,000.* Thus natural gas purchased currently by seven of the eight Cities is at a level nearly three times the price at which FGT will purchase under the rates set forth in the Commission's Opinion and Order No. 598. The result of said Order will have a direct effect on gas prices to be paid and the refunds reflected in the formula prescribed therein.

e. The Petitioners seek intervention at this time to become party to the proceeding and thereby be permitted to file the Application for Rehearing as set forth below.

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* Ten therms is approximately equal to one MCF of gas, hence 6.01¢ per therm corresponds to 60¢ per MCF. The impact of the cost increases in natural gas on these Florida municipal systems is detailed more fully in the Fuels Committee protest and petition filed May 26, 1971 in FPC Docket CI 71-219 (Humble Oil & Refining Company).

f. The intervention here sought, we submit, is necessary and appropriate to afford the Fuels Committee and the Cities adequate representation of their interests. Their interest will be directly affected by any determinations in further proceedings before the Commission and will not be adequately represented by any existing parties. Further, the Petitioners cannot be assured

that any existing party or group now represented before the Commission with which Petitioners interests may coincide will fully or adequately pursue the Petitioners interests in subsequent proceedings steming from the Commission's Opinion No. 598, issued July 16, 1971. It is reasonable to expect that other parties will seek rehearing of the Commission's Opinion and Order. Therefore the Petitioners submit their intervention and application will not delay these proceedings.

APPLICATION FOR REHEARING

The specification of errors in the Commission's Opinion and Order No. 598 and the grounds relied upon are:

1. The Commission erred in suspending refund payments and modifying retroactively just and reasonable rates heretofore established (Paragraphs 169-172) and adopting the settlement provision for refunds based upon new rates for periods prior to 1965 and in subsequent years the Commission has exceeded its statutory authority. Further the provisions calling for discharge of such refund obligation at the producers option cannot reasonably be said to accomplish the purposes of the Natural Gas Act.

The Commission acting pursuant to Sections 4, 5 and 16 of the Natural Gas Act (15 U.S.C. §§ 717c, 717d and 717o) has

waived refunds established by its Order No. 546 (40 F.P.C. 530 (1968)) by prescribing new rates (Opinion No. 598, p. 73) and provided a credit formula whereby those refund obligations that remain may be offset by dedication of new gas reserves to interstate commerce (*id.* at p. 81).

The Commission is required to order refunds of charges made and collected under Section 4e (15 U.S.C. 717c(e) of the Act (*FPC* v. *Tennessee Gas Transmission Co.*, 371 U.S. 145, 152-153 (1962); *FPC* v. *Interstate Natural Gas Co.*, 336 U.S. 577, 581-582 (1949)). Such Commission duty is required as the consumer is the intended beneficiary of the Act and by so doing the consumer is protected from "exploitation at the hands of the natural gas companies." *FPC* v. *Hope Natural Gas Co.*, 320 U.S. 591, 610 (1944). The Commission must not confuse a discretionary refund (Section 7e of the Act) which *may* be required (*FPC* v. *Sunray-DX Co.*, 391 U.S. 9, 45 (1968)) with the non-discretionary refund under 4(e). It would appear that the Commission is using the language of Section 16 to roll Sections 7e and 4e together and achieve the end it seeks. Even under Section 7, refunds have in the past been limited to set-offs for state tax payments and royalties (See *Turnbull & Zoch Drilling Co. et al*, 36 F.P.C. 164, 167 (1966) and *Skelly Oil Co. et al*, 35 F.P.C. 849, 854 (1966)) and do not take the incredible dimension of hundreds of

millions of dollars determined two years earlier to be consumer owned funds which are to be passed along to the consumers. *Texas Eastern Transmission Corp.* v. *FPC*, 414 F.2d 344 (5th Cir. 1969).

The Commission's methodology in rate making may include a variety of formulae but they may not work together to produce arbitrary or unreasonable consequences. *Permian Basin Area Rate Cases*, 390 U.S. 747, 800 (1968). The validity of Commission rate prescription stands on the results not the method. *FPC* v. *Hope Natural Gas Co., supra*, U.S. at 602.

2. The Commission erred by failing to adequately consider and discuss gas supply when it endeavored to attain such supply through rate determination. (Paragraphs 74-91).

Fixing its goal on the containment of the "panic psychology", the Commission relies heavily on industry demand data and rate proposals and concludes that price-supply determinations are judgmental in the extreme. The Commission accepts the contention that supply-elasticity is hard to apply to gas, but fails to discuss the acknowledged inadequacies or absence of competition in the gas fields (*Austral Oil Co. et al* v. *FPC*, 428 F.2d 407 (5th Cir. 1970), slip op. p. 5, fn 10; Permian Basin Area Rate Cases, 390 U.S. 747, 792 (1968))

as these elements may influence the judgments rendered. The Commission in the discharge of its obligations may not concede the complexities and the lack of evidentiary persuasiveness and thereupon conclude simply that a positive relationship between price and supply exists. This determination is the basis for a major portion of the Commission rationale in deciding to allow rate increases, burden the flowing gas with exploration and development funds for new reserves and acceptance of the settlement. The price-supply relation requires a more complete explanation.

3. The Commission erred by failing to make an adequate showing that the prescribed rates and incentives are required to elicit new exploration and development. (Paragraphs 92-105). The court in *City of Detroit* v. *FPC*, 230 F.2d 810 (5th Cir. 1955), *cert. denied*, 372 U.S. 916 (1962) denied rate increases intended to stimulate exploration and development. In *City of Detroit*, *supra*, it was stressed that the Commission must be assured an increase is no more than what is needed. Surely a reversal would follow if a refund obligation were to be redetermined retroactively to achieve the same end. Even if a settlement permits a prospective increase in rates to accommodate expanded exploration and development (see *Champlain Oil and Refining Co.*, 23 F.P.C. 861 (1961)) it is distinguishable from the settlement

adopted here which is impermissible as a retroactive redetermination of refund obligations established from a proceeding whose objective was to prescribe just and reasonable rates. Rather than look to revenues from "new" gas which can be adjusted in the future if the rates are shown not to bring forward new capital, the Commission has burdened flowing gas as an "insurance factor." This is unfair and improper because there has been an insufficient showing of the need for capital additional to what the rates for new gas may provide and because the Commission may not have to resort to retroactive changes to accomplish a desired result prospectively.

4. The Commission erred in its determination to accept the settlement provisions enabling producers to substitute gas dedication for payments owed the consumers.

One can foresee that the producers, knowing that

refunds made under 4e would not be a desirable result might propose

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the solution offered in the settlement. The beauty of the proposal is its simple result. The administrative problems of refunding could be avoided * if the producers retained the funds in exchange for a pledge to increase exploration and development. Better still that the option to refund lie with the producer rather than the distributor or pipeline. The Commission acceptance of this approach of necessity lies in its interpretation of the powers it possesses under those cases which interpret Section 16 broadly. (*Permian, supra; FPC* v. *Tennessee Gas Transmission Co., supra; FPC* v. *Natural Gas Pipeline Co.*, 314 U.S. 575 (1942)). There can be no doubt that a Commission decision accepting the settlement standing alone would be tantamount to retroactive rate making. *United States* v. *Morgan*, 307 U.S. 183 (1939), *FPC* v. *Tennessee Gas Transmission*, 371 U.S. 145 (1962), *FPC* v. *Interstate Natural Gas Co.*, 336 U.S. 577 (1949). It is also a violation of its duty under the Natural Gas Act, *FPC* v. *Hope Natural Gas Co.*, 320 U.S. 591, 610 (1944).

The Commission has not established adequately the basis on which it will determine that the monies will be spent for exploration and development, nor whether oil or gas is being sought

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with the monies retained by the producers and how to value the by-products that may be unearthed with drill-

* The Commission would only trade one administrative burden for another.

ing for gas. The supervision of these matters are critical to their success if the consumer is to benefit and the plan to serve the purposes of the Act. The Commission has not adequately judged the results and practicalities of its method. *FPC* v. *Tennessee Gas Transmission Co.*, 371 U.S. 145, 154-155 (1962). Also *Permian, supra*, 390 U.S. at 800.

5. The Commission erred in finding the AGA data was reliable for the purpose used (Paragraphs 40-65, 96, 101, 144). The Commission inadequately traced the purposes and the data use so as to differentiate where data use ended and judgment commenced as it relates to supply needs and cost justification. Lack of satisfactory release and examination of industry data by the parties jeopardizes the use, the degree of weight to be accorded them and whether use in cost determinations ("zones of reasonableness") or establishing projected needs for capital comport with the requirements of administrative determinations.

Where summary data or reports relied upon by parties to support these contentions, claimed to be derived from confidential information (*Wirtz* v. *Baldor Electric Co.*, 338 U.S. 860 (1949), *Powhatan Mining Co.* v. *Ickes*, 118 F.2d 105 (1941)) or the

key evidentiary issue is the extent of variance not the existance of cost (*Ohio Bell Telephone Co.* v. *Public Utility Commission of Ohio*, 301 U.S. 291 (1937)) it has ben consistently held that the underlying information must be made available to the other parties to provide a fair and adequate hearing.

In circumstances where motive toward bias can exist the information proffered will be rejected. *Palmer* v.

Hoffman, 318 U.S. 109 (1943). The AGA data and the Commission's memoranda related thereto (Order Concerning Ex-Parte Communications and Release of Intra-agency Documents, in Dockets AR61-2 et al, AR69-1 both dated July 2, 1971), raises a fundamental issue as to the substantiality of the industry data and the extent a fair hearing was had. The Commission is inconsistent when it declares its manimum objection is to influence favorably an industry trend in gas supply and in reliance on questionable industry data proceeds to permit this determination unreasonably to raise rates, deny refunds and provide prospective escalation in search of a gas supply which it has not adequately determined will be elicited by these prescriptions.

Due process in regulatory determinations requires that two elements be satisfied. There must be a factual basis, the element of substantial evidence (15 U.S.C. 717r) and a rational basis for

the conclusions, *Rochester Telephone Corp.* v. *U.S.* 307 U.S. 125, 146 (1939). Having both of these elements then under the Natural Gas Act a determination must also protect the consumer. *Texas Eastern Transmission Corp.* v. *FPC*, 414 F.2d 344, 350 (5th Cir. 1969). The only rationale which surfaced in these proceedings is the argument that to protect the consumer from a gas shortage the monies heretofore determined to be owed him can be better spent by the producers. In light of the "new" gas rates prescribed, including E & D increases, escalation provisions contingent upon performance by the producers, and other incentives, the wholesale relinquishment of refunds due the consumer is at worst a "nightmare born of stalemate out of avarice" (*Austral*, slip op. p. 4) and at

best a plan to produce dollars not shown by substantial evidence to be required or to be no more than needed. *City of Detroit* v. *FPC*, 230 F.2d 810, 817 (D.C. Cir. 1955), *cert. denied* 352 U.S. 829 (1956).

6. The Commission erred in finding a 15% rate of return was just and reasonable (Paragraph 124). In its Opinion No. 546 the Commission found a 12% rate of return was proper—based on a 1960 test year. In these proceedings an overall rate of 13% was proposed by the Staff. The Commission improperly used a "zone of reasonableness" explanation for its decision to allow 15%. Without explanation

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and in light of the use of the "zone approach in other rate making areas to permit the increases sought by the producers, this finding does not stand on a rational basis. The Commission appears to indulge itself and permit the difficulties of area-wide disparities to interfere without adequatue support of such a position.

7. It is error to justify inclusion of non-cost items on the basis that the rates prescribed as just and reasonable exceeded reasonable costs, absent an attempt to quantify them (Paragraph 143). This rationale is unwarranted and not demonstrated to be reasonable. Such an approach would permit the agency to use suspect or disputed data for cost determinations. Such costs under the "zone of reasonableness" approach (See paragraphs 128-142) then may be selected from the high end of the zone. The result is a cost of such magnitude to allow a lower just and reasonable rate to be determined, hence no need to quantify the non-cost elements. The non-cost factors used by the Commission in the Permian Area proceedings were approved by the Supreme Court in the *Permian*

case.* But such items must serve the purposes of the Natural Gas Act—namely, *rates* at the lowest reasonable level consistent with *adequate service* in the public interest. *Atlantic Refining Co.* v. *Public Service Commission*, 360 U.S. 378, 381 (1959). The inherent danger to those

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to be protected by the Natural Gas Act when non-cost items are not examined carefully should be apparent. Such non-cost items should be quantified, if possible, or the inability to do so detailed. The relationship to rates and service need to be established.

8. The Commission erred in its conclusion that the Court of Appeals empowered it to make retroactive changes in the Commission decision in AR 61-2 (Paragraphs 2-4). The Commission acted improperly in following the "mandate" of the Court. The Commission has erroneously interpreted the Court's statement that the refunds may be "too burdensome" to mean it is empowered to dispense with the refunds.

The Commission's powers are statutory. *Public Service Commission of New York* v. *FPC*, 257 F.2d 717, 722 (3rd Cir. 1958). Similarly courts have held that absent statutory authority vested in the Commission by Congress, the courts may not imbue the Commission with their powers. *State Corporation Comm. of Kansas* v. *FPC*, 215 F.2d 176, 184 (8th Cir. 1954); *Montana-Dakota Utilities Co.* v. *Northwestern Public Service Co.*, 341 U.S. 246, 254 (1951); see *FTC* v. *Raladam Co.*, 283 U.S. 643, 649 (1931).

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* A two price system, allowing equal pricing of oil-well and gas-well gas, "risk" factors allowed in rate of return and the use of a rate increase moratorium.

Under the umbrella to "taking new evidence" the Commission has overreached the scope of its authority to make retroactive rate changes.

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9. The Commission erred in permitting automatic escalation of "new" gas costs absent a showing such treatment is required (Paragraph 145).

The decision to allow automatic escalation of "new" gas is made without adequate explanation or justification. The Commission has determined a generous rate by the "zone of reasonableness" approach and to provide automatic escalation is unreasonable in light of the fact that this form of cost relief is available when demonstrable cost trends would justify such action. Such a decision should await verification of any cost experience anticipated by the record as it stands.

10. It was error to accept the settlement proposal wherein rates were redetermined and flowing gas was made to bear a portion of the exploration and development costs. (Paragraphs 147-159).

As discussed earlier (p. 6, *supra*) to the extent the decision to accept the settlement constituted a withholding of refunds (or waiver of producer obligation to refund) from the consumer, this is in violation of established law. The device used was a retroactive restructuring of rates which is impermissible. In addition the Commission erred by failing to adequately explain or justify the determination that the quantities of capital funds allegedly

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needed to vitalize the exploration and development activities of the producers must be supported by gas already

sold and being consumed. The Commission notes that exploration expenditures were at a high in 1957 and virtually constant for the next ten years (Opinion, para. 94). What the Commission is now asking of the consumer is that he bear the financial responsibility for the decisions made by the industry over a decade.

The purchaser has been paying just and reasonable rates on gas purchased under contracts which embody costs determined to represent the levelized expenditures for development and exploration. These costs have not changed, but rather have been incurred over the years pursuant to a program of exploration that apparently only the producers understand. The revenues from flowing gas contracts are indeed a source of revenues important to the producers. However, the Commission in its search for dollars to provide capital for the producers, fails even to deal properly with the equities among the parties affected by the settlement. Three factors indicate the selection made by the Commission is a questionable first choice when the funds required and the effect to be produced are no better than uncertain estimates. Oil prices are ascending and oil and gas exploration frequently go hand in hand. South Louisiana has been

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estimated to hold great promise for "new" gas and rate increases are promised in this proceeding for new gas produced. Absent a reasonable attempt by the Commission to ascertain, that these other revenues cannot provide such funds as are required, it must not turn to the consumer in default.

WHEREFORE, the Fuels Committee of the Florida Municipal Utilities Association prays that an order be entered granting its Petition to Intervene; and further, because of the reasons set forth in its Application for Rehearing prays that its Application be granted by the Commission.

Respectfully submitted,

Fuels Committee of the Florida
Municipal Utilities Association

By /s/ James F. Fairman, Jr.
JAMES F. FAIRMAN, JR.
Its Attorney

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2600 Virginia Avenue, N.W.
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August 16, 1971

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[Caption Omitted]

PETITION FOR REHEARING BY AMERICAN PUBLIC POWER ASSOCIATION

The American Public Power Association, a party hereto, respectfully petitions the Commission to rehear and reconsider its Opinion No. 598 and accompanying order issued July 16, 1971 in the above proceedings.

In support thereof the American Public Power Association hereby supports and adopts the petition for rehearing filed by the Municipal Distributors Group (consisting of the American Public Gas Association and the Memphis Light, Gas and Water Division) in these proceedings on August 13, 1971.

Respectfully submitted,

ALEX RADIN
General Manager
American Public Power Association
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Washington, D. C. 20037

August 16, 1971

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[Caption Omitted]

PETITION FOR REHEARING OF THE NEW YORK STATE PUBLIC SERVICE COMMISSION

Pursuant to Section 19(a) of the Natural Gas Act and Section 1.34 of the Rules of Practice and Procedure of the Federal Power Commission (Commission), the New York State Public Service Commission, an intervenor herein, applies for rehearing, by petition under oath, of the Commission's Opinion and Order Determining Just and Reasonable Rates for Natural Gas Produced in the Southern Louisiana Area (Opinion No. 598), issued in the above entitled proceeding on July 16, 1971.

SPECIFICATION OF ERRORS

The Commission's decision forgiving nearly half a billion dollars in refunds due consumers under Opinion 546 constitutes a gross abuse of its regulatory obligations. The Commission seeks to derive support for this result from a settlement proposal, to which we have consistently objected

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on substantive grounds, although the Commission also purports to provide independent findings for its result. These findings are inadequate and the partial support for the proffered settlement does not provide an independent basis for the result.

Before detailing the errors in Opinion 598, we note that we do not object to the Commission's ultimate conclusion that the just and reasonable area price for *future* vintages of gas-well gas, subject to Louisiana taxes, should be 26 cents per Mcf. As we discuss below, we challenge

any retrospective application of this price and its application to oil-well gas or to gas in the federal domain. We also wish to make it clear that in accepting the 26 cent price we do not subscribe to the Commission's hodgepodge, undefined zone of reasonableness or believe that the subsidiary cost findings, to the extent there are any, are reasonable or sufficient.

1. The Commission's massive refund forgiveness is unsupported and arbitrary. In this respect, it should be made clear that we are referring to all aspects of that forgiveness—the retroactive revision for refund calculation purposes of the first and second vintage prices established in Opinion 546, the ordering of less than 100% refunds for October 1, 1968—January 1, 1971, the use of the revised flowing-gas ceilings (which we also challenge) for post January 1, 1971 refunds, and the provisions permitting a total discharge of even

these improperly reduced refunds through the future dedication of gas to interstate commerce.

a. The Commission erroneously views the mandate of the Fifth Circuit in *Austral Oil Co.* v. *FPC*, 428 F.2d 407 (CA5, 1970) as giving it virtually unlimited authority to revise retroactively the rates established by the Commission in Opinion No. 546 (mimeo pp. 2-7). The Fifth Circuit's decision, even if valid in permitting retroactivity in some circumstances,[1] plainly limited the Commission's

[1] As we have consistently stated, we adhere to the view that the Fifth Circuit's affirmance with conditions and the limited option afforded by *Austral* with respect to refunds is improper and, of course, remain free to contest that decision on review. We hereby incorporate by reference our petition for certiorari of that decision *PSC* v. *Amerada Hess Corp.*, No. 692, Supreme Court October Term, 1970.

authority to so revise the rates determined in Opinion 546 to a situation where it could be shown that such action was warranted by circumstances relating to the gas supply situations appearing since the Commission's decision in Opinion 546-A. The Commission has failed to make such findings and, indeed, could not do so on the basis of the record.

Instead, the Commission simply finds, without supporting explanation, that Opinion 546 did not afford adequate return and understated the requirements for exploration and

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development. The Commission's Opinion 546 rate determinations in those respects were affirmed in *Austral*, and are not, we submit, open to retroactive revision. But even if they were, much more than these conclusory statements would be needed to overturn judicially approved findings. In fact, the return allowances in *Austral* were generous. Thus, a 12% overall return was allowed for all vintages even though much of the first vintage gas, which was costed on the basis of 1960 data (which reflected costs higher than those actually applicable to gas-well gas sold in the 1950's and oil-well gas). Moreover, for post-1960 (second vintage gas) the above-cost allowance afforded returns in addition to the 12% figure used in the cost derivation. In accepting the figures in the settlement proposal, the Commission has erred in not stating what the returns and exploration and development allowances should have been for each of the periods for which a revision is made and why. Moreover, there is no explanation (other than the settlement proposal which has no independent probative effect) why the vintages used in Opinion 546 should not be continued to be used, at least for the refund period. The reasons for not providing

100% refund for the October 1, 1968 to January 1, 1971 period are also unclear and its adoption is contrary to law. The retroactive application of the new flowing gas

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price is unexplained and, we submit, also error.

Finally, the Commission erroneously allowed for discharge of the producers' remaining refund obligations through a system of workoffs. The Commission supports the bizarre forgiveness of the whittled-down remainder of refunds (which would total about $150 million) by the conclusory statement that this should be an incentive to producers that will be of benefit to the consumer. Apparently, the explanation for this is to be found in Opinion 595 (Texas Gulf Coast) where, in our view, no better explanation was given. As we stated in our petition for rehearing from that opinion, which we respectfully incorporate herein in its entirety since the Commission says that it relies on that Opinion in large measure, the economic cost of new gas, *i.e.*, the cost of eliciting new supplies of gas, should be reflected in the price for new gas-well gas. A 26-cent price, in the state taxing area, will do this. In both *Permian* and *Southern Louisiana I*, the Commission properly recognized that this new gas-well gas price must be adequate to induce investments. Nothing has been shown in this or other cases to warrant any different conclusion. The Commission's conclusion here, that a refund workoff is needed as an additional incentive is unsupported, unsound and discriminatory. The Commission has failed to

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demonstrate why the needed incentive should not be confined to the new gas-well gas price. Plainly, if that price

is not adequate, there is no reason to assume that investments will be made. Accordingly, if the refund workoff were necessary, it implies producers not benefiting from such workoffs would have inadequate incentives. Since the refund obligations vary greatly among producers and applies not at all to new entrants and pipeline producers, the system is unreasonable.

For the same reasons, it discriminates against potential new entrants such as pipelines, whom this Commission was allegedly encouraging to enter the field in its decision in the *Pipeline Production* case.

The discriminatory character of refund workoff among producers and among customers may be simply illustrated. For example, if producer A dedicates new gas to the interstate market and thereby is relieved of a refund obligation the producer gets the stated ceiling price of 26 cents, plus a penny of refund relief, or in effect 27 cents. If producer B has no refund obligation and dedicates new gas to the interstate market, that producer is limited to 26 cents.[1]

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The refund workoff provision discriminates against consumers also. A customer of producer A will be charged 27 cents for gas, the customer of producer B will pay 26 cents. Further, under the provision of this order, which permits up to 50 percent of refund obligations to be discharged by dedications to another buyer, a customer of producer A may in effect pay 28 cents per Mcf, that is, the stated ceiling of 26 cents per Mcf plus a loss of 2

[1] This consequent price difference among producers is also, therefore, anti-competitive because established producers, who have refund obligations, can realize higher effective new gas prices than potential new producers. Established producers can thus bid more for leases, etc.

cents per Mcf in refund entitlements (for example, the loss of one million cents of refund entitlement upon receipt of 500,000 Mcf of new gas, with the other 500,000 Mcf of workoff gas going to some other customer). The buyers have no options that could help them evade this discrimination.

The refund provision therefore is discriminatory and prejudicial, violative of Section 4(b) of the Natural Gas Act.

b. While we object to the refund workoff procedure in its entirety, we also note an error within that procedure. The Commission erred in failing to define in Ordering Paragraph (G) (mimeo p. 81) what would be considered a *bona fide* offer of new dedications. The Commission's order is thus not only vague but leaves open the probability of considerable litigation.

Under Ordering Paragraph (G), as it now reads, Producer X owing substantial refunds to Pipeline Y could discharge all

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those refunds without paying one cent or dedicating one Mcf of gas to that pipeline by offering Pipeline Y gas remote from Y's line or gas at excessive prices and then selling such gas on other terms to Pipeline Z to whom it owes a small refund. The unused credit would be applied against Pipeline Y's refunds and the 50 percent limitation on dedications to other purchasers contained in Paragraph (G) would not apply. At the very least, a producer should be required to offer reserves nearby to the entitled pipeline on substantially the same terms as offered to any subsequent pipeline.

2. The provision for the contingent escalation of flowing gas prices is unsound, unjust, unduly discriminatory and wholly unsupported in reason or law.

a. If the producers succeed in finding new gas and dedicating it to the interstate market pursuant to the Commission's opinion, the bonus provision will cost gas consumers the equivalent of an extra 5c per Mcf for the 15 billion Mcf of new gas. The opinion does not directly provide a bonus in the new gas price. Instead, it provides for 1.5¢ increase in the old gas ceiling price upon the dedication of 15 billion Mcf of new gas to interstate commerce. The net effect, is that gas consumers will pay about $750,000,000 more when and if 15 billion Mcf of new gas have been dedicated to interstate commerce, which

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amounts to an extra 5 cents per Mcf of new gas.[1]

There may not be enough gas dedicated to interstate commerce to give rise to the bonus. However, it is clear

[1] We estimate the bonus at about $750,000,000 according to the following calculations: At the end of 1968 there were about 66.1 trillion cubic feet of gas dedicated to interstate pipelines in the Southern Louisiana area. See *The Gas Supplies of Interstate Natural Gas Pipeline Companies*, 1968, FPC, Bureau of Natural Gas, January 1970. Some of that flowing gas will have been depleted, of course, by the time enough new gas could be found to generate the bonus; but there will also undoubtedly be additions of developmental reserves that will be subject to the flowing gas ceilings and to the bonus. Accordingly, we estimate that there may be about 50 trillion cubic feet of flowing gas entitled to the penny-and-one-half bonus if and when the producers find the necessary new gas. This equals $750,000,000 payable on account of finding 15 trillion cubic feet of new gas, or an extra 5¢ per Mcf, equivalent to 31¢ plus escalations. If these calculations are wrong, neither the parties nor the Commission has addressed itself to showing how or why. Indeed, the Commission makes no finding about the aggregate effect of the bonus on industry or on consumers.

if there is enough new gas found and dedicated, the bonus provisions substantially increase the effective cost of new gas to gas consumers. We strenuously object to its allowance. It is purely a windfall since the new gas price in itself provides adequate incentive and must necessarily do so in the Commission's view.

b. Under the Commission's opinion, the bonus for finding new gas is chargeable to gas consumers who get no new gas. This makes no sense at all. Suppose hypothetically, that producer X sold all its gas from Southern Louisiana to Natural Gas Pipeline Company under contracts dated prior to October 1,

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1968, and that in a future year it discovers new gas which it sells to Transco and thereby triggers the bonus provisions. Gas consumers in Chicago will be chargeable with the bonus for new gas that is being burned in New York. While there may be offsetting situations, only by coincidence would consumers who pay the bonuses on old gas receive proportional benefits in the new gas supplies on which the bonuses are predicated. The bonus provisions as formulated can only be described as discriminatory and preferential, or (possibly) capricious.

c. Furthermore, the bonus is designed to reward sellers of old gas for the finding and dedication of new gas. Accordingly, the bonus is patently anti-competitive in giving a preference to established producers, who have gas to sell under existing area contracts, and is prejudicial to the entry of certain pipeline producers and other potential newcomers to the Southern Louisiana area. The prospect of a bonus affords established producers in the area the opportunity, for example, to bid higher on pros-

pective gas leases than newcomers could. Thus, producers can freeze out pipelines and then turn around, as the Commission knows, and extract advance payments from pipelines, at least so long as this Commission refuses to outlaw such payments.

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In addition, the bonus provisions allow an increase in the *area rate* for old gas upon the dedication of certain volumes of new gas to interstate commerce. If Shell or Superior dedicate no "bonus volume" of new gas to interstate commerce but Texaco and Mobil dedicate substantial volumes, Shell and Superior are nevertheless entitled to the bonus under the Commission's order, a result that is bizzare and discriminatory; worse, it is discouraging to the exploration for gas, especially in situations where the lion's share of the benefits would go to producers exercising no efforts to find gas. Under the Commission's order, Shell and Superior's new gas may be dedicated to reducing their refund obligations and then would not count toward generating the bonus. Yet, if *other* producers found enough gas, Shell and Superior would get both the refund waiver and the bonus. Likewise, even if Shell or Superior or any producer finds *no* new gas it is entitled to the bonus if the other producers find the new gas and dedicate it to interstate commerce.

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d. Finally, as we have shown above, the bonus raises the effective price of new gas from 26¢ to about 31¢ per Mcf for each of the 15 billion Mcf of new gas found and dedicated to interstate commerce. However, a strange effect of the bonus provision as formulated, is that the next Mcf of new gas (beyond the 15 billion Mcf) reverts

back to a price of 26¢ per Mcf plus periodic escalation. That is, after the 15 billion Mcf are found and dedicated, additional dedications do not give rise to any bonus or price increase that might effectively raise the new gas price above the stated ceilings of 26¢ plus escalation. In the meantime, however, the *intrastate* market will have to pay about 31¢ per Mcf of new gas in order to attract any Southern Louisiana gas out of the interstate market. After the 15 billion Mcf of new gas is found and dedicated to interstate commerce, the intrastate market price for gas will still be abount 31¢ (or 32¢ with escalation) but the interstate price will (unless the FPC yields further) fall back to the ceiling level of 26¢ (or 27¢ with escalation). Consequently, within a few years the effect of the settlement proposal will be to prejudice the interstate market in favor of the intrastate market.

e. We object to the Commission's adoption of a system of contingent escalations or bonuses in its entirety. We point out here that even if the bonuses approach is legal and desirable, the Commission's action grants a bonus for too little gas. The Commission refers to projections of the Pipeline Purchase Group,

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showing the requirement which must be supplied from Southern Louisiana (mimeo p. 20). These projections show that from 1971-1977, Southern Louisiana will be called up to supply over 64 TCF. Elsewhere the Commission found that dedications of new gas reserves to the interstate market of approximately 60 TCF from Southern Louisiana will be necessary for deliverability during the 1971-1975 period (mimeo p. 39). The Commission's action here allows an enormous bonus to the producers

when 15 TCF are dedicated to the interstate market—an amount hardly able to do the job.[1]

For all these reasons, we object strenuously to the bonus provisions as not only unnecessary since the 26-cent price is sufficient but as capricious, discriminatory, and wholly unreasonable. Indeed, if a greater incentive were needed than the 26-cent price, which we do not believe is the case, economic reality would plainly call for a higher new gas well gas price for the future. As the Commission realizes, such a price cannot be supported directly; no warrant whatsoever exists for providing it indirectly, as proposed by the settlement proposal and Opinion 598.

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3. While the Commission purports to justify its order on independent bases, it is apparent that most of the order, including the refund and bonus provisions, are buttressed by nothing more than the settlement proposal. The Commission suggestion that a settlement can be approved as such over objection is true only in a case such as *Cities of Lexington* v. *FPC*, 295 F.2d 109 (CA4, 1961), where no substantive objections were raised. This is not to say that the terms of a proffered settlement may not be approved over substantive objection if the terms proposed are reasonably supported independent of the fact that they were proffered by a number of parties. This has not and cannot be done on the record now before the Commission.

The Commission cannot find support for adoption of this proposal in the large though hardly unanimous, concurrence of various sections of the industry. The *Austral*

[1] Even assuming the producers participate in the refund workoff, the total new gas dedicated to the interstate market would amount to 30 TCF.

reference to "pitting market forces against each other" is hardly applicable here where due to the supply situation, whatever its cause, one side has an overwhelming bargaining advantage. *Austral's* reference to "pitting market forces" does not mean that industry may be allowed to defeat consumers. The Commission failed to carry out a full independent determination as to the appropriateness of the settlement. In exercising its legislative responsibility of fixing rates, the Commission cannot assume the role of mere arbiter. The Natural Gas Act was not passed to allow a

combination of utilities (producers, pipelines, and distributors) to make the ultimate determination of justness and reasonableness for rates which the consumer must pay.

The Commission's statement (mimeo p. 8) that the UDC settlement proposal is supported by the overwhelming majority of consumer interests is unsound. Apparently, the Commission reaches this conclusion because of the acquiescence of many distributors in the proposed settlement. While it may be that in the past distributors represented consumer interests where their interests have coincided, and did so well, such a coincidence of interests is absent here. Much of the settlement relates to the waiver of refunds, which would have been flowed through to consumers, or to the revising of rates which would have the same effect. Therefore, distributors support is meaningless here as any indication of full protection of the consumer's interest in obtaining gas at the lowest reasonable price. While today's situation seems to require a higher new gas price than in the past, this does not mean anything goes. The Commission assertion (Opin-

ion 598, p. 15) that New York's recommendation of a 26¢ price for new gas well gas, in the Louisiana taxing area, gives weight to the settlement proposal is wrong. We reject, as we always have, the settlement package as totally unreasonable to consumers.

4. Since the ultimate 26¢ price does not presently aggrieve the New York Commission, it is not unnecessary to spell

[13,905]

out our objections to the Commission's approach in reaching this conclusion. Nevertheless, we deem it desirable to note the following substantial errors in the Commission's discussion of various individual cost components and in its selection of an overall rate of return.

a. The Commission reliance on a rate of return of approximately 15 percent (mimeo p. 52) is completely unsupported by findings, and indeed could not be, since the record could not support such findings. Selection of this return, which can only be described as exorbitant, is totally unexplained by the Commission except for the conclusionary statement that it is just and reasonable.[1] The Commission has failed to state the time period over which this amount is to be paid and has failed to make any findings as to the return on equity which producers would receive from an overall return of 15 percent.

[1] A 15 percent overall rate of return is particularly excessive when viewed in light of the returns found reasonable in Opinions 468 and 546. In *Permian*, the Commission's allowance of a 12 percent return expressly included an increment to reflect the risk of finding gas of less than pipeline quality. This meant, as the Commission stated in court, that a return allowance of no more than 10½ percent was deemed appropriate for new gas-well gas and about 9 percent for flowing gas. In *Southern Louisiana*, a return of 12 percent was also allowed, but again based on the special circumstances in the area.

The Commission has elsewhere determined that producers generally have at least a 15 percent debt ratio (34 F.P.C. at 201).

[13,906]

Assuming that embedded debt costs are 6 percent, the overall 15 percent rate of return affords 16.6 percent on producer equity. The Commission's judgment must be explained. To the extent the extraordinary return could be justified on grounds of incentive (though the Commission has not done so here), that would apply only to future vintages and cannot be rationalized for all the vintages to which the Commission is applying its rate of return conclusion.

b. The Commission determined the upper range of successful well costs to be in the area of 4.26 cents apparently derived by using a $25.58 drilling cost per foot and a productivity figure of 600 Mcf per foot (mimeo p. 54 and footnote 121). For the reasons stated in our brief in this case, which we incorporate herein, this substantially overstates costs. The Commission's adoption of its figures again rests on a conclusion without any meaningful explanation or findings. A Commission assertion that it prefers one figure over another is plainly not an adequate finding.

Moreover, in using a productivity figure of 600 Mcf per foot drilled derived from the average for 1946-69, the Commission severely understated productivity by using a longer time period and thereby diluting the more recent data which show higher productivity than in earlier years. The Commission is using this data to set ceilings for gas dedicated after 1960, so there is no basis for reaching back to 1946 for productivity

[13,907]

experience. With particular regard to future gas vintages, the December, 1970 lease sale in the offshore Louisiana area should lead to discovery rates that, on a national average basis, will reach at least the level of 1965-1969. The conservative 654 Mcf average for 1965-1969 should, as a minimum, be used to establish the upper range of successful well costs.

The Commission has found that drilling costs per foot should range upward from about $25.00 per foot (mimeo p. 50). How it arrived at this figure and what the scope of its upward range is has been left unexplained. Whatever the trend toward deeper drilling and the general inflation of this period, these costs are not reflected in the record or in the recent history of the record. If and when costs do reach the level arrived at by the Commission, then increased rates in prospective vintages may be warranted. But to arrive at such a level now is plain error. The Commission was also arbitrary and capricious in failing to take notice of and analyze the 1967 Census drilling data (mimeo p. 50, footnote 113).

c. The Commission has failed to explain the range of individual new gas cost components and its findings, to the extent they exist, are conclusions unbuttressed by needed explanation. The total variable range of reasonable costs is also not supported by adequate findings or explanation (mimeo p. 57). The only clue we are given is that the range spread is 4-5 cents per Mcf and that 26¢ per Mcf is somewhere within that spread.

[13,908]

To the extent the Commission relies on Opinion 595, we incorporate herein our application for rehearing in that case.

d. The Commission erroneously allowed automatic escalations of the area ceilings for new gas (mimeo p. 73). Neither projected cost increases nor projected decreases in productivity trends warrant increases in price over the life of a vintage of gas. If and when cost increases are incurred which push costs for a successive vintage above the ceiling established for new gas, a new ceiling for that vintage should be established. If, for example, the cost of finding gas increases to 27 cents in 1968, then the ceiling for gas dedicated in 1968 may be set at 27 cents. That does not justify raising the ceiling for 1974 gas from 26 cents to 27 cents. General inflation does not justify provisions for future price escalations since the rate selected here by the Commission, which is based on the upper range of the various individual cost elements, already compensates producers for any inflationary pressures. If and to the extent the unit cost of dedicated new gas rise above 26 cents, the Commission may allow measured escalation.

e. The Commission states that MDG did not show how or whether the discrepancy in proved recoverable reserves in the offshore area infects the calculation of new gas costs (mimeo p. 21). However, such a discrepancy obviously has a bearing on rate of return. The pipelines' statement of reserves is based in part on contractually-based reserve estimates associated with

take-or-pay requirements in contracts. If the pipeline estimates are exaggerated, then producers are getting a return too early.

f. The Commission failed to make any findings about the extent to which the advance payments received by producers reduce their cost of finding gas. Alternatively,

the Commission was obliged to prohibit further advance payments in the area as inconsistent with the rates it fixed.

g. The Commission's selection of October 1, 1968 as the beginning date for pricing new gas was in error. The Commission's reasons for this action, *i.e.*, "to avoid multiplicity of division dates" and because "it is consistent with the settlement proposal" (mimeo, p. 59) do not justify this action.

In *Permian*, the Supreme Court reluctantly approved establishing a price for new gas in 1965 applicable to gas committed to interstate commerce since January 1, 1961. Although stating (390 U.S. at 798-99),

> "[I]t is difficult to see how the higher rate could reasonably have been expected to encourage, retrospectively, exploration and production that had already occurred,"

the Court noted the Commission's belief that its September 1960 statement of General Policy created expectations of higher rates among producers which must be satisfied. This, the Court allowed, provided a permissible basis for the Commission's action. The Commission's action here does not rest on such a basis. The Commission's choice of October, 1968 negates the whole concept

of vintaging and is an unduly high price to pay for any possible administrative convenience while providing a windfall to the producers.

5. The Commission here erroneously allowed a "prospective" rate of 22.375 cents per Mcf for flowing gas. This huge increase over the rates prescribed in Opinion 546 is again without adequate support.

a. The Commission's decision adds on a cushion of approximately 1.2 cents on top of the overly-generous Staff cost computation of 21.18 cents per Mcf. The Commission has also added automatic and contingent escalations on to this price which are completely justified. For the reasons explained in our brief to the Commission in this case, no increase in the Opinion 546 rates has been shown to be justified. The departure from the modified BTU allocation method is not adequately explained and is error.

The Commission's justification for this increase is to increase producer cash flow. Yet as we have pointed out elsewhere, this can only provide a windfall to producers, who would not be required to commit any part of these increased revenues to exploration and development. The Commission's statement that it finds it unlikely that producers will decide not to expand their efforts is unexplained and pure conjecture (mimeo p. 63). The flowing gas price cannot in any way act as an incentive to future investment.

The Commission's sanction to automatic escalations in flowing gas prices is similarly unexplained, without record support or adequate findings. Our objections to the escalation for new gas are equally applicable here.

b. The Commision's statement, in support of the flowing gas price, that traditional costing methods of flowing gas does not provide any support for the presently needed exploratory effort to meet future demand is incorrect (mimeo p. 60). The allowance for exploration and development is geared to cover expansion and any portion of the return allowance on flowing gas may be plowed back for expansion.

We would also point out that the Commission in all probability erred when it stated that Staff was "candidly and correctly making" flowing gas bear a part of the responsibility for further exploration (mimeo p. 62). Whether or not the unwarranted settlement levels for flowing gas will result in any investment in exploration and development depends entirely on the producers.

6. The Commission stated in its opinion that the "burden of the required new incentives" should not be loaded on new gas but rather spread throughout the total rate structure (mimeo p. 7). This is erroneous. Unless the new gas price contains the incentives necessary to attract new entrants and new investments, additional supplies of gas of the magnitude necessary to meet the nation's requirements will not be forthcoming.

In the *Permian Basin Area Rate Cases*, 390 U.S. 747 (1968), the Court reluctantly approved the Commission's cut off date of January 1, 1961 for new gas, noting that "[i]t is difficult to see how the higher rate could reasonably have been expected to encourage, retrospectively, exploration and production that had already occurred." *Id.* at 798. The same reasoning applies with greater force to the Commission's action here.

The Commission also stated (mimeo p. 43) that its adoption of the settlement proposal will avoid radical and sudden price shifts. If the Commission means that this justifies in whole or part its failure to keep flowing gas prices at reasonable levels, the Commission errs.

7. The Commission apparently has erroneously adopted the testimony of UDC Witness Winger that funds necessary for exploration and development must be ob-

tained through internal generation in large measure brought about through increases in natural gas prices (mimeo pp. 39-42).

The Commission first refers to inadequate capital formation in the natural gas producing industry itself. The overwhelming percentage of natural gas is produced by large integrated petrochemical corporations or independents with combined oil and gas operations.

The Commission also states, based on Mr. Winger's testimony that capital formation, for gas exploration and development, has been declining since 1957 while unit costs have been

[13,913]

rising. This statement is at least open to question. First, as the Commission found in *Permian*, directionality in the exploration and development of gas reserves did not begin until the 1960's, 34 FPC 159, 189. Second, unit costs in the production of gas have climbed only recently. The conclusion that gas has been underpriced significantly ignores the gas glut of the 1960's when supply greatly outpaced demand. The Commission has also erred when it states that capital spending for domestic exploration and development for natural gas reached a peak in 1957 of $5 billion and then declining to a virtually constant level for the next ten years at $4.25 billion. Rather, these levels of expenditures refer to both *oil and gas.*

The Commission fails, however, to come to grips with the problem of how much of the additional funds necessary for investment by the oil and gas industry should be generated by internal means, bearing in mind the fact that natural gas sales amount to less than 5% of total industry gross revenues. Rather, it has only made highly

generalized statements, justifying no particular portion of the various rates it has approved, that part of the necessary funds will be generated from higher rates for flowing and new gas (mimeo p. 44). Contrary to the Commission assertions about the need for internal gas generation of funds for the gas search, the industry has found sufficient capital to invest heavily in the North Sea, Northern Slope, and Offshore Louisiana area, for example, based on general sources of funds.

[13,914]

8. The Commission erroneously established the same area rate for offshore production as for onshore production despite the fact that offshore gas in the federal domain is not subject to Louisiana production taxes (mimeo p. 56). The Commission explains its decision, in part, on the basis that offshore operations involve higher costs and risk factors. The record here, contrary to the Commission's statement, does not indicate that the cost of offshore drilling relative to the gas found is considerably higher than onshore for gas of the same vintage.

The Commission also erred in establishing that gas from the offshore area (as defined in the Settlement proposal) should be at a rate of one cent per Mcf less than the above onshore rate for gas under contracts dated prior to October 1, 1968 (mimeo, p. 63). The Commission has given no reason why this flowing gas should be allowed a bonus of 1.3 cents per Mcf.

Further, the Commission's definition of "offshore" (mimeo p. 63) leaves a gap in that there is no discussion of the appropriate pricing level for land-based gas on federal enclaves such as Wheeler Air Force Base.

9. The Commission erred in setting the same area rates for casinghead gas as for gas-well gas. In Opinions 468, 546, and 546-A the Commission consistently held that casinghead gas should not receive the higher prices allowed more recent vintages. 34 FPC 159, 209, 40 FPC 530, 590; 41 FPC 301, 315. In Opinion 546-A the Commission stated that (41 FPC at 315):

> ". . . [W]e can perceive no justification for continuing to allow the more recent vintages of this gas to command a price which is based in part on an additional allowance which includes an incentive for increased exploration and development and which is predicated on the industry's directional exploration capability. Moreover, while we have consciously refrained from attempting to define the cost of casinghead gas, we are well aware that is indicated cost is substantially below that of gas-well gas."

The Commission here apparently recognizes that casinghead gas is less costly to produce than gas-well gas, but attempts to justify its decision on the basis that price equality will prevent diversion to the intrastate market (mimeo p. 66). There is no point, however, in allowing a higher price for this gas in an attempt to prevent its diversion to the intrastate market. First, casinghead gas from the Federal domain offshore is by definition in the interstate market and is subject to FPC regulation. Second, there

is nothing to indicate that with respect to onshore casinghead production the intrastate market will not always be able to outbid the interstate market for any category of new gas whatever ceiling is fixed by the FPC.

[13,917]

10. The Commission here has allowed producers to charge one cent per Mcf for delivering offshore gas onshore. Its only explanation is that such a charge was contained in the settlement proposal (mimeo p. 57). To allow such a charge without any finding of cost involved or, indeed, any asserted basis at all is error.

11. We are at a loss to understand the Commission's reliance on intrastate Southern Louisiana contracts to justify the rate levels set here. It is obvious that the great variation in prices during the period of a single year implies that within the intrastate market, there must be differences within the contracts involved. However, the Commission has left unexplained this situation. Moreover, offshore sales are purely interstate in character.

12. The Commission approved the settlement proposal respecting transportation of liquids and liquifiable hydrocarbons by a pipeline for the account of a producer (mimeo p. 65). While we believe the levels established there are too low, we in any event object to the Commission's ordering paragraph establishing August 1, 1971, as the effective date of this provision for sales conditioned to the outcome of Docket No. R-338 (mimeo p. 76). Rather, the effective date should be from and after August 1, 1971, or from the date of the order conditioning such sale to the outcome of Docket No. R-338, if earlier. The Commission's action denies pipelines and consumers the relief due them.

[13,918]

13. The Commission erred if it reasserted the special exemption established in Order No. 428 for small producers making jurisdictional sales here (mimeo p. 70).

Under the Commission's decision in Order No. 428, small producers everywhere would be relieved of all obligations under Sections 4, 5 and 7 of the Natural Gas Act. This, we have maintained is without legal justification. Therefore, grant of such treatment here is without justification. Furthermore, the Commission compounds the error if it makes the exemption retroactive, freeing small producers of any refund obligation arising from excessively priced past sales.

14. The Commission in Ordering Paragraph (K) provided that if any provision of the order should be held invalid, the remainder of the order would not be affected thereby. Yet the opinion makes clear the Commission's apparent belief that adequate supplies of natural gas would be forthcoming only through a combination of the three major provisions of the settlement proposal and order, *i.e.*, price, refunds, and escalations, contingent and fixed.[1] It would indeed be hard to visualize these provisions

standing separately since the Commission has elsewhere referred to these as components of its total rate design here. Therefore, it would appear that either (1) Ordering Paragraph (K) is not only unnecessary but also misleading or (2) the provisions are independent and severable in which case the Commission's actions cannot be justified.

15. We reserve our rights with regard to the adequacy of any producers for reporting new dedications pursuant to ordering paragraph H.

16. The Commission acted improperly by approving the settlement of refund obligations which it found to be due

[1] We recognize, of course, that some parts of the order might well be severable.

consumers in Opinion 575 and in any rate proceeding previously decided or reserved for decision; exclusion of the *Rayne Field* and *Bastian Bay* proceedings only, is inadequate.

17. The Commission calls particular attention to Section 11 of the settlement (mimeo p. 46). As we have stated before, this section is devoid if any assurance to the consumer of anything except higher rates. The producers make no commitment to invest any funds supplied by the rate increases ordered by this Opinion in Southern Louisiana or anywhere else and make no undertaking or agreement to use due diligence or best efforts or any effort to find new gas. The consumer inevitably can only rely on the attractiveness of the new gas price he must pay producers to attract them

[13,920]

to search for gas. Section 11 adds nothing for the consumers and certainly does not justify the windfall on old gas reflected in the opinion.

CONCLUSION

For the foregoing reasons, the New York State Public Service Commission seeks a rehearing on the merits of Opinion 598 and for such other relief as the Commission may allow.

Respectfully submitted,

/s/ Joseph J. Klovekorn
JOSEPH J. KLOVEKORN
Staff Counsel

Dated: Albany, New York
August 16, 1971

Copies to all parties listing appearances in this proceeding.

[13,923]

[Caption Omitted]

ERRATA TO PETITION FOR REHEARING OF THE NEW YORK STATE PUBLIC SERVICE COMMISSION

The following changes should be made in the petition for rehearing submitted by the New York State Public Service Commission in these consolidated proceedings:

1. Page 16, line 2 should read, "conclusion. Nevertheless, we deem it desirable to note the".

2. Page 21, line 12 should read "are completely unjustified. For the reasons explained in our brief".

3. Page 30, line 8 should read, "of any requirement for reporting new dedications pursuant to ordering".

Respectfully submitted,

/s/ Joseph J. Klovekorn
JOSEPH J. KLOVEKORN
Staff Counsel

[13,928]

[Caption Omitted]

PETITION TO INTERVENE OUT OF TIME AND PETITION FOR REHEARING BY CONSUMER FEDERATION OF AMERICA

The Consumer Federation of America (CFA) respectfully petitions to intervene out of time in these proceedings for the limited purpose of joining in the petition for rehearing filed August 13, 1971 by the Municipal Distributors Group. In support thereof, CFA states as follows:

1. The Consumers Federation of America is a national affiliation of consumer groups throughout the United States. Its headquarters are in Washington, D. C.

2. The person to be contacted with respect to this petition is:

Edward Berlin
1910 N Street, N.W.
Washington, D. C.

General Counsel
Consumer Federation of America

3. The Consumer Federation of America is deeply concerned about the adverse impact of the Commission's decision and order in Opinion No. 598 on the nation's consumers of natural gas. The CFA participated in opposition to the proposed national rule-making proceeding to set new rates, Docket R-389A, and joined in the petition to reopen proceedings and supplement thereto filed June 25,

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1971 and July 14, 1971 respectively by the American Public Gas Association in Docket AR69-1.

4. It has become clear by the Commission's Opinion and Order No. 589 issued July 16, 1971 as well as Order No. 435 in Docket No. R-389A issued July 15, 1971 that the Commission does not plan to set firm nationwide rates by the rule-making procedures originally proposed in Docket R-389A. These orders also make it clear in denying the APGA petition to reopen proceedings that the Commission does not propose to reopen the proceedings in Docket AR69-1 for an independent investigation of the discrepancy in reported figures as to gas reserves, contrary to a resolution duly adopted by the Consumer Federation of America at its annual meeting urging:

> That the Federal Power Commission conduct an investigation of gas reserves with opportunity for consumer investigation of the Commission's findings and with public disclosure of company reserve data.

Accordingly, the CFA respectfully petitions for the right to intervene out of time for the purpose of joining in the petition for rehearing filed August 13, 1971 by the Municipal Distributors Group, consisting of the American Public Gas Association and the Memphis Light, Gas & Water Division. Since this petition to intervene is limited to that purpose, no inconvenience or delay will occur to any other party.

5. The Consumer Federation of America hereby petitions for rehearing of the Commission's Opinion and Order No. 589 issued July 16, 1971 in this docket and adopts as the grounds therefore the Petition for Rehearing filed by the Municipal Distributors Group

on August 13, 1971, which is incorporated herein by reference.

Respectfully submitted,

/s/ Edward Berlin
EDWARD BERLIN
1910 N Street, N. W.
Washington, D. C. 20036

General Counsel
Consumer Federation of
America

August 16, 1971

[13,951]

[Caption Omitted]

ORDER ON PETITIONS FOR REHEARING

Issued: September 9, 1971

DC-52

[13,953]

[Caption Omitted]

OPINION NO. 598-A

ORDER ON PETITIONS FOR REHEARING

(Issued September 9, 1971)

CARVER, Commissioner:

Applications for rehearing of Opinion No. 598, and accompanying order, issued July 16, 1971, have been filed by American Public Power Association, Amoco Production Company, Associated Gas Distributors, General American Oil Company of Texas, Humble Oil and Refining Company, *et al.* (Major Producers Group), Mobil Oil Corporation, Municipal Distributors Group (MDG), New York State Public Service Commission (New York), Placid Oil Company, *et al.*, and Texaco, Inc.

The Consumer Federation of America (CFA) and the Fuels Committee of the Florida Municipal Utilities Association (Fuels Committee) filed separate petitions to intervene and applications for rehearing on August 16, 1971. We grant CFA's and Fuel Committee's petitions to intervene, and overrule the objections to the consideration of the CFA petition (filed with us on August 23, 1971 and August 26, 1971) and to the Fuel Committee's petition (filed with us on August 25, 1971). The points raised in their applications for rehearing are essentially those put forward by MDG and New York.

Our Order No. 437, issued August 17, 1971, effective August 15, 1971, implemented Executive Order 11615, wherein the President of the United States stabilized prices, rents, wages, and salaries for a period of 90 days. We note at the outset that this Statement of Policy will apply with respect to this opinion.

[13,954]

REQUESTS FOR CLARIFICATION

The instances wherein clarification is appropriate generally relate to the settlement agreement and the asserted failure of the opinion to treat certain matters covered in the agreement, or ambiguities arising from the use of language which seemed to support the settlement but varied from it.

The petition of AGD points to the use of the phrase "sale to interstate pipeline" as apparently narrower than the phrase used in the settlement agreement, which called for refund credits for dedication of new gas reserves for "jurisdictional sales". The contention is well taken, and we will correct ordering paragraph G accordingly.

The supplemental application of General American Oil Company of Texas asserts that the Commission has not clearly provided for the collection of onshore rates for production in the so-called Disputed Zone. The Major Producer Group makes the same contention, and also contends that the opinion is silent on the matter of onshore prices being used for the calculation of refunds with respect to gas delivered inland from the Chapman Line, and to gas sold from the Disputed Zone. Both these contentions are well taken, and we will clarify our opinion accordingly.

General American and the Major Producer Group also believe that ordering paragraph G does not conform with the spirit of the balance of Opinion No. 598, and with the settlement agreement, in that it does not clearly enough provide that a producer who has made a sincere and diligent effort to discharge a refund obligation, may make a showing to that effect, so that the Commission might be in the position of accepting such proof in lieu of further

refunds and in full satisfaction of the refund obligation. They also contend that ordering paragraph G does not effectuate section 8.2.1 of the Settlement Proposal, to give a producer two additional years in which to make sale and discharge its refund obliga-

[13,955]

tion if 65% or more of its aggregate obligation is discharged by October 1, 1977. The opportunity to petition for special relief of this time constraint is also provided for. We will clarify our order to make these matters explicit.

The Major Producer Group asks for a clarification of ordering paragraphs A(c) and A(i) to permit direct payment of the transportation charges by producers to pipelines, to accomplish the same financial objective as an adjustment to ceiling prices, but in a more practical fashion. We agree.

The Major Producer Group calls attention to the fact that in Opinion No. 546-A, contracts executed between May 3, 1968, and October 1, 1968, were granted special exception for reasons therein stated,[1] and the same contracts are not similarly treated here. They should be, and we will so provide.

The Major Producer Group calls attention to an obvious error in ordering paragraph (B)(c), wherein we appear to have attributed $150 million of refunds to deliveries during the period from October 1, 1968, to January 1, 1971. The $150 million figure is the total refund liability, and we shall make this clear.

With respect to other technical matters, we agree that ordering paragraph (B) should be amended to provide

[1] 41 FPC 301, 312-4, 347 (1969).

for Btu adjustments to refund floor price levels as provided in the settlement proposal, and that ordering paragraph (A)(d) should be modified to provide, as to newly discovered reservoirs on previously committed acreage, for collection of the rate applicable to the particular vintage of gas involved without distinction between casinghead gas and gas-well gas. Similarly, newly discovered casinghead gas reserves should be considered new commitments under the refund discharge provision of ordering paragraph (G).

[13,956]

We also will provide that adjustments in rates attributable to changes in Btu content shall be computed by the applicable formula and changed without the necessity of filing a notice of change in rates.

We agree, finally, that our ordering paragraphs did not contain specific language granting permanent certificates under section 7(c), and that it should.

The request for revision of Appendix C (attached hereto) a form for reporting data on rate schedules, rate changes, and quality, is granted for purposes of convenience and uniformity.

REQUESTS FOR MODIFICATION

The petition for rehearing filed by New York is devoted in part to an argument with the Court of Appeals for the Fifth Circuit about what its language means. That argument has been fully dealt with; we see nothing to be gained in further discussion. New York and the other parties who assert that we have misread the Court have access as of right to a Court of Appeals on whether we are correct or incorrect.

New York's other basic contention is that the Commission has adopted the wrong policy. New York believes

that higher prices to producers should be awarded only with respect to new production. This, in our opinion, is a matter of policy, not of law. We have conceded being heavily (and we think also properly) influenced by the breadth of the support given the settlement proposal in selecting the rate design proffered to us. We think the reviewing courts properly should leave to regulatory commissions, including the New York Public Service Commission, considerable leeway on policy matters. However, contrary to New York's position, we have stated that the twenty-six cent rate (with which they purport to agree) is

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merely one element in a complex rate design package. Furthermore, refunds as a part of that package represented a policy decision; if such a policy decision had not been made as it was, the price for new gas might well have been greatly higher. We also think that the New York Public Service Commission understands that an argument about the rate of return being 12% or 15% is largely meaningless, particularly where, as here, we are dealing with a "model" for rate making. The component of the inferred rate base upon which the return percentage is computed is equally important, and New York does not even advert to that part of our discussion.

Discussion of the sort offered by the New York Commission on the costing evidence, and the criticisms of the conclusions we reached concerning that evidence, do not amount to allegations of legal error. Some asserted inconsistencies have been corrected to conform with the settlement proposal, as explained above. On other matters, we reiterate our stand, which is that substantial evidence persuaded us that the settlement proposal was well within the zone of reasonableness of the cost components.

The contention that refund provisions and contingent escalation provisions are unlawful and discriminatory is rejected for reasons earlier stated. The issue of advance payments was raised for the first time in the petition for rehearing, and we decline to enter into that issue at this time, and find no legal basis for the contention that we are obliged to do so. Our reasons for treating casinghead gas identically with gas-well gas, for both price and refund purposes, were stated in Opinion Nos. 595 and 598 and have been discussed earlier in this order. We note, again, that the Btu content of casinghead and gas-well gas is about the same, and the record shows that substantial volumes of casinghead gas are being flared in Southern Louisiana—reason in itself for eliminating the price discrimination.

In Opinion No. 598, we set forth the desired level of service and indicated how industry exploration and development

should increase. We there determined just and reasonable area rates, balancing the consumer interests in the lowest reasonable rate against the consumer needs for continued reliable service. As we indicated in Opinion No. 598 (pp. 32-34, 40-43), alternative energy supplies would impose a substantial burden upon the consumer, should such alternatives have to be relied upon to fill such an energy gap. While we cannot predict the relative impact of new gas coming onstream on the rolled-in price paid by the consumer, we recognize that the price levels here established will be at a lower level than the price projections of alternate fuel sources. However, we can predict, based on the record in this proceeding, the first year impact of our increased rates. Witness Engel indicated that based on staff's recommended rates (22

cents per Mcf for flowing gas and 25 cents per Mcf for new gas), the average consumer's gas bill for home heating in New York City would increase by about $.60 per month (T. 6794). Witness Clay testified that the average unit revenue under effective rates was 20.11 cents which would increase to 21.54 cents based on the UDC settlement rates. In our opinion, based on the present gas supply situation and the projected demands by the consumer for natural gas, coupled with the prices of alternative fuels, the rates prescribed in Opinion No. 598 reasonably reflect this difficult balancing process.

The Municipal Distributor Group, and those associating themselves with the position taken by that party at the rehearing stage (American Public Power Association, Consumer Federation of America, and Fuels Committee of the Florida Municipal Utilities Association), devote most of their attack to the matter of AGA data being used in the new gas costing model. They also join with New York in the argument concerning the Court of Appeals mandate, and the other substantive arguments made by the New York Public Service Commission. We reject, for the reasons stated in Opinion No. 598, MDG's contention that we are confined to the arbitrary selection of specific rate components based on historical cost estimates in implementing an economic costing model. Thus, in dis-

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cussing the points raised by MDG on rehearing, we do not, in any manner, endorse their basic philosophical premise respecting producer regulation.

Although we have answered MDG's arguments in Opinion No. 598, they continue to question our discussion of the "discrepancy" in reserve estimates for the federal domain in Southern Louisiana, *e.g.* 24.1 trillion

cubic feet as reported by AGA and 34.1 trillion cubic feet in Exhibit 31-A. As we stated in Opinion No. 598 such a difference does *not* affect either our premises or conclusions respecting new gas costs, but relates only to the availability of gas for sale in this area. Of the 34.1 trillion cubic feet of reserves reflected in Staff Exhibit 31-A, 27.6 trillion cubic feet were already dedicated to interstate pipelines and an additional 1.2 trillion cubic feet was dedicated but not yet reported in Form 15.[2] Of the remaining 5.3 trillion cubic feet, 1.4 trillion cubic feet represented direct sales, 1.0 trillion cubic feet for fuel and feedstock, and 1.8 trillion cubic feet for warranty sales.[3] The remaining 1.1 trillion cubic feet, available for sale, was found by the Commission to have no significant impact on our findings concerning gas supply.

We cannot overlook the inconsistency of MDG's positions with regard to AGA reserve data. On one hand, MDG urges us to use AGA reserve data from 1964 to 1968, exclusively, but objects to the use of AGA data over any other time period.[4] Simultaneously, MDG urges that a difference between AGA and Form 15 reserve data precludes the use of AGA data unless AGA data is used to reinstate the rate levels set in Opinion No. 546, in which case MDG would permit the use of AGA data without question.[5]

[13,960]

MDG first questioned the use of AGA data after the Commission's decision in *Southern Louisiana I.* In that

[2] Exhibit 31-A, Schedule 1, lines 12-13.

[3] Exhibit 31-A, Schedule 1, lines 18-19.

[4] Staff recommended the 1965-1969 period.

[5] AGA data was used in precisely the same manner in Opinion Nos. 546 and 598. MDG continues to assert the validity of Opinion 546 rates, thereby endorsing AGA data in that opinion.

proceeding, MDG raised no objection to its use. In this proceeding, as we have noted, MDG urges the use of AGA data 1964-1968. From this it appears that MDG objects to all AGA data after 1968. Thus, if we were to reject AGA data after 1968, the productivity factor in the costing of new gas would net a result of less than one cent, well within the 4-5 cents per Mcf zone of reasonable costs. On the one hand, if we were to use the productivity figure applied in Opinion No. 546,[6] and MDG indicated there was nothing "suspect" of the AGA data in that period, in calculating Opinion No. 598 rates, new gas costs would approximate 29 cents per Mcf, compared to the just and reasonable rate of 26 cents per Mcf. On the other hand, if we were to assume that AGA reserve additions were under-estimated, we could add the ten trillion cubic foot purported discrepancy—or even double that figure—and the result would still be well within the zone of reasonable costs.[7]

Texaco urges us to adopt a contingent escalation program predicated on individual producer dedications of gas rather than on an industry-wide basis. This is another policy alternative which, if it were not part of the settlement package, has much to commend it. We selected the alternative we did for the reasons stated. Even assuming *arguendo*, that we could establish individual producer supply goals, by assigning quotas to each producer the public interest is here concerned with total dedications of gas in the magnitude of several trillion cubic feet from all sources, not with target objectives for each producer.

---

[6] 1947-1961: 587 Mcf used in Opinion No. 546.

[7] Assuming an additional 20 trillion cubic feet in reserve additions from 1946-1967, the result, 658 Mcf, would affect new gas costs about 2 cents per Mcf.

Placid Oil Company, et al. contends that refund obligations should be able to be discharged by the commitment of new gas reserves outside the Southern Louisiana area. We find no merit in such a proposal. Under the area rate concept, refunds are determined on the basis of just and reasonable rates in each area. The gas which is eligible for crediting

against the refund obligation must be directly related to the refund obligation incurred. Thus we find it would be unreasonable and discriminatory to discharge such refunds through exploratory, drilling, and production activity *outside* of the particular producing area.

Just as New York emphasized that it did not agree to the UDC settlement proposal, so do Mobil and Amoco—reaching, however, a quite different conclusion as to what the Commission should have done.

Of the two petitions, Amoco's arguments are deserving of more discussion here, because it complains that the Commission unfairly inferred that its arguments were identical to those of Mobil. Mobil essentially reargues the contentions made originally. We find in its petition for rehearing nothing requiring modification of the original opinion, beyond the clarification already accomplished, as to the disputed zone, tracking procedures, and refund obligation computations. In other words, we reject the contention that the settlement proposal was changed, and thus is no longer before the Commission. We did, in fact, accept the settlement proposal in its entirety.

While Amoco is correct in pointing out that its rate design was different from that of Mobil, we do not believe it necessitates any substantive change in the reasons articulated for accepting the UDC settlement proposal rate design.

The Commission further finds and so orders:

(1) This opinion and order is subject to our Statement of Policy Implementing the Economic Stabilization Act of 1970 (P.L. 91-379, 84 Stat. 799, as amended by P.L. 92-15, 85 Stat. 38) and Executive Order No. 11615, including such amendments as the Commission may require. All Commission opinions and orders in Docket Nos. AR61-2, *et al.* and AR69-1 which were in effect on July 15, 1971, including our order of December 24, 1970, which stayed Opinion No. 546 rates and our order of June 29, 1971, extending the moratorium on increased rate filings, shall remain in effect until Opinion No. 598 becomes operative.

(2) "Pan American Petroleum Corp. (Oper.) *et al.* RI62-359, RI63-389" are deleted from Appendix B, Part III, page 3.

(3) Docket No. RI64-234, is deleted and Docket Nos. RI71-638, RI71-1148, and RI71-3 are added, opopsite Amoco Production Company, *et al.*, Appendix B, Part IV, page 1.

(4) Docket Nos. CI67-840 and CI67-541 are deleted and Docket No. CI71-764 is added, opopsite Amoco Production Company, *et al.*, Appendix B, Part V, page 1.

(5) Each individual respondent shall by November 1, 1971, submit in writing, any additions or deletions or corrections required as of July 16, 1971, to the dockets listed in Appendix B. The additions attached to this opinion and order are made a part of Appendix B.

(6) The second paragraph in Ordering Paragraph (B) is amended by inserting the following, "all Dockets listed in Parts III, IV, or V of Appendix B", after Docket Nos. G-13221, *et al.*

[13,963]

(7) The following language is deleted from the last sentence of Ordering Paragraph (B)(c): "in order to bring the refund obligations in this period to within a range of one percent of $150 million dollars."

(8) Docket Nos. RI66-299 and RI68-523 should be deleted and Docket Nos. RI66-209, RI71-1119 and RI71-1152 should be added to Appendix B, Part IV, page 7.

(9) Docket Nos. CI68-1086 should be deleted and Docket Nos. CI69-881 and CI71-519 should be added to Appendix B, Part V, page 5.

(10) Docket No. RI69-362 should be deleted and Docket Nos. RI65-476, RI69-762, and RI71-1150 should be added to Appendix B, Part IV, page 9.

(11) Docket Nos. CI70-102, CI70-79, CI70-398, CI71-516, and CI71-840 should be added to Appendix B, Part V, page 7.

(12) Ordering Paragraph (G) is amended to include "newly discovered casinghead gas" within the meaning of new gas reserves.

(13) Ordering Paragraph (A)(d) is amended to include "newly discovered casinghead gas" within the meaning of newly discovered reservoirs on previously commited acreage.

(14) Ordering Paragraph (G) is amended by deleting in the third line the words "sale to interstate pipeline" and substituting "jurisdictional sale".

(15) Permanent certificates for applications pending as of November 1, 1970, as listed in Part V of Appendix B, are granted at the rates established in Opinion No. 598.

(16) Delete from the last sentence of paragraph 30, p. 14, "Producer Group" and substitute "Pipeline Purchaser Group".

(17) Second line of paragraph 107 on p. 47 should be "cases" rather than "case".

(18) Paragraph 163, p. 65, should read as follows: "It is not inconsistent with the evidence or prior controlling precedent that ceiling prices be adjusted upward or downward to reflect seven-eighths of any change in federal or state production, severance, gathering or similar taxes, becoming effective after October 1, 1970, as consistent with the settlement proposal, and we will so order."

(19) Paragraph 164, line 2, insert "in the federal domain" after "platform".

(20) Change "AR69-2" to AR69-1" and change "AR69-1" to AR61-2" in Ordering Paragraph A(a), p. 72.

(21) Ordering Paragraph A(d), p. 74, fourth line, change "sale to interstate pipelines" to "jurisdictional sale".

(22) It is so ordered that the 12 dockets entitled to special relief in our Opinion No. 546-A, 41 FPC 301, 312-314, 347 (1969) are afforded the same relief in Opinion No. 598. Accordingly those twelve dockets, and their underlying contracts, are subject to the same area rate and to all provisions of Opinion No. 598 relating to contracts dated after October 1, 1968.

(23) A new section is added to Ordering Paragraph (A)(c) as follows:

"(5) The base area rate for gas produced in the Disputed Zone shall be the same rate as is subject to the Louisiana production tax."

[13,965]

(24) The following statement should be added to the end of Ordering Paragraph (B):

> "The prices used in determining refunds shall be subject to upward or downward Btu adjustments as provided in Ordering Paragraph (A) (e) (1) (i). The onshore price will be applied to offshore gas delivered inland from the Chapman Line and to gas sold from the Disputed Zone in determining refunds. If by August 1, 1976, a producer shall have discharged 65 percent or more of its aggregate refund obligations or by August 1, 1976 has not discharged at least 65 percent of its refund obligations, but has made a sincere and diligent effort to so discharge, that producer may petition the Commission for special relief for an extension until August 1, 1978, and to present evidence of its efforts to so discharge.

(25) Ordering Paragraph (B) is amended by adding: "For purposes of the rates to be used in determining refunds, the Btu adjustments stated in A(e) (1) (i) shall be applicable here."

(26) Except for the clarifications in the opinion and order, and as herein provided, the applications for rehearing are denied, inasmuch as no new facts or legal authorities have been presented which would require further modification in Opinion No. 598.

By the Commission.

KENNETH F. PLUMB,
Secretary.

(SEAL)

[13,966]

Additional Section 4(e) Dockets
AR69-1

Amerada Hess Corporation	RI71-608	
Amoco Production Company	RI71-3	
An-Son Corporation	RI71-807	
Apache Corporation	RI71-884	
Aquitaine Oil Corporation	RI71-680	
Agnes Cullen Arnold	RI71-682	
Ashland Oil, Inc., (Operator), *et. al.*	RI71-433	
Atlantic Richfield Company	RI71-657	
Austral Oil Company, Inc.	RI71-607	
Austral Oil Company, Inc. (Operator), *et. al.*	RI64-186	
Austral Oil Company, Inc., Agent for Oil Participations, Inc.	RI64-188	
Austral Oil Company, Inc., (Operator), Agent for Oil Participations, Inc.	RI64-187	
Aztec Oil and Gas Company	RI71-469	
Perry R. Bass, (Operator), *et. al.*	RI71-610	
David C. Bintliff	RI71-683	
Birthright Oil Company	RI71-681	
Bradco Oil and Gas Company	RI71-678	
Bradco Properties, Inc.	RI71-679	
George R. Brown	RI71-415	
Burmah Oil Development, Inc.	RI71-738,	RI71-739
William T. Burton Industries, Inc.	RI71-723	
The California Company, A Division of Chevron Oil Company	RI71-624	
F. A. Callery, Inc.	RI71-489	
Callery Properties, Inc.	RI71-490	
Cenard Oil and Gas Company	RI71-779	
Cities Service Company	RI71-676	
Cities Service Oil Company	RI71-677	
Clinton Oil Company	RI71-625	
E. Cockrell, Jr.	RI71-778	
Colorado Oil and Gas Corp.	RI71-630	
Columbia Gas Development Corp.	RI71-784	
William V. Conover	RI65-363	
Consolidated Gas Supply Corp.	RI70-1090,	RI71-204
Continental Oil Company	RI71-833	
Edwin L. Cox	RI71-724	
Crystal Oil Company	RI71-414	

Dalco Oil Company	RI71-606
Damson Exploration Corporation	RI71-774
Damson Exploration Funds, Inc.	RI71-775
Davis Oil Company	RI71-629
Dixilyn Corporation	RI71-776
Dixon Management Corporation, Agent	RI71-727

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Emerald Oil Company, (Operator), *et. al.*	RI71-402
Energy Corp. of America, Inc., (Operator), *et. al.*	RI71-462
Exchange Oil and Gas Corporation	RI71-728
Felmont Oil Corp., (Operator), *et. al.*	RI71-432
Forest Oil Corporation	RI71-491
Forest Oil Corp., (Operator), *et. al.*	RI64-164, RI64-189
Freeport Oil Company	RI71-729
General American Oil Co. of Texas	RI71-684
General Crude Oil Company	RI71-793
Getty Oil Company	RI71-428
Alfred C. Glassell, Jr.	RI71-471
Jack W. Grigsby, (Operator), *et. al.*	RI67-457
Gulf Oil Corp. & Kenmore Oil Co., Inc.	RI71-413
Hamilton Brothers Oil Company	RI71-780
Estate of William G. Helis	RI71-470
Highland Resources, Inc.	RI71-431, RI71-465
Joseph F. Homer & Grace Fracine Hill Homer	RI71-777
Humble Oil and Refining Company	RI71-700
Humble Oil and Refining Company, (Operator), *et. al.*	RI64-771
Hassie Hunt Trust	RI71-661
H. L. Hunt, (Operator), *et. al.*	RI64-138
Hunt Industries	RI71-405
Hunt Oil Company	RI71-416
The Jupiter Corporation	RI71-560
R. E. Kellerman	RI71-789
Kern County Land Company	RI71-782
Kerr-McGee Corporation	RI71-558, RI71-834
Kewanee Oil Company	RI71-781
King Resources Company	RI71-473
Ladd Petroleum Company	RI71-725
Lake Washington Inc.	RI71-786
The Louisiana Land & Exploration Co.	RI71-461
C. H. Lyons, Sr.	RI71-790

Lyons & Logan, Agent for C. H. Lyons, Sr.	RI71-791	
Lyons Petroleum	RI71-792	
Lyons Petroleum, *et. al.*	RI71-704	
MPS Production Company, Inc.	RI71-726	
Marathon Oil Company	RI71-434	
Marathon Oil Company, (Operator), *et. al.*	RI66-19	
John W. Mecom	RI71-785	
Midwest Oil Corporation	RI64-195,	RI71-783
Midwest Oil Corporation, (Operator), *et. al.*	RI64-214	
George Mitchell & Associates	RI71-429	
Mobil Oil Corporation	RI71-492	
Monsanto Company, (Operator), *et. al.*	RI71-435	
Monterey Pipeline Company	RI71-736	
Robert Mosbacher	RI71-731	

Murphy Oil Corporation, *et. al.*	RI71-627	
Newmont Oil Company	RI71-734	
North Central Oil Corporation	RI71-542	
Occidental Petroleum Corporation	RI64-73,	RI71-832
Ocean Drilling & Exploration Company	RI71-735	
The Offshore Company	RI71-795	
M. P. O'Meara	RI71-732	
Pan American Petroleum Corporation	RI71-638	
Pano Tech Exploration Corp., (Operator) *et. al.*	RI71-401	
Pennzoil Producing Company	RI71-685	
Phillips Petroleum Company	RI71-559,	RI71-743
Placid Oil Company	RI71-626	
Robert B. Prentice, Operator, *et. al.*	RI71-628	
River Corporation	RI71-742	
Saint Helens Petroleum Corporation	RI71-885	
Samedan Oil Corporation	RI71-796	
Caroline Hunt Sands	RI64-26	
Caroline Hunt Sands, *et al.*	RI64-137	
Caroline Hunt Sands & Lloyd B. Sands	RI64-356	
Shell Oil Company	RI67-394,	RI71-887
Shell Oil Company, (Operator), *et. al.* and R. E. Hubbard, Jr., (Operator) *et. al.*	RI65-476	
Shenandoah Oil Corporation, (Operator), *et. al.*	RI71-464	
Signal Oil & Gas Company, (Operator), *et. al.*	RI71-472	

Skelly Oil Company	RI71-468	
Sohio Petroleum Company	RI71-740	
The South Coast Corporation	RI71-733	
Southern Natural Gas Company	RI71-886	
Southwest Gas Producing Co., Inc.	RI71-797	
State Exploration Company	RI71-794	
Sun Oil Company	RI71-639	
The Superior Oil Company	RI71-835	
Tenneco Oil Company	RI71-741	
Tennessee Gas Supply Company	RI71-831	
Terra Resources, Inc., (Operator), *et. al.*	RI71-430	
Texaco Inc.	RI71-521	
Texas Crude Oil, Inc.	RI71-827	
Texas Gas Exploration Corporation	RI71-609	
Texas Pacific Oil Company, Inc.	RI65-407,	RI71-467
Three S and T Oil Company, Inc.	RI71-690	
Paul M. Toce	RI71-829	
J. C. Trahan, Drilling Contractor, Inc.	RI71-730	
TransOcean Oil, Inc.	RI68-52,	RI71-737
Union Carbide Petroleum Corporation	RI71-722	
Union Oil Co. of California	RI71-564	
Union Texas Petroleum, a Division of Allied Chemical Corporation	RI71-830	
U.S. Oil of Louisiana, Inc.	RI71-788	
U.S. Oil of Louisiana, Ltd.	RI71-787	
Ted Weiner	RI71-828	

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Gene M. Woodfin, Trustee for the Jean Curry Glassel Trust	RI71-466
Woods Oil and Gas Company, (Operator), *et. al.*	RI67-125
Wrightsman Investment Company	RI71-463

[13,970]

APPENDIX C (Revised)

RATE SCHEDULE, RATE CHANGE AND QUALITY STATEMENT

1. PRODUCERS NAME AND RATE SCHEDULE NO.	2. PURCHASER
3a. APPLICABLE SECTION 4(e) OR 7(c) DOCKET NO.(S)	3b. AREA RATE DOCKET NO. (IF ANY)

4. DATE(S) OF CONTRACT AND/OR AMENDMENT(S) 1/

	Contract	Amendment	Date
A.	☐	☐	On or before _____
B.	☐	☐	1/1/61 - _____
C.	☐	☐	After _____

5. GAS TYPE AND VOLUME AT 60°F AND _____ PSIA.

A. PERCENT OF GAS WELL GAS _____

B. ANNUAL VOLUME. (For latest available 12 months volume. Estimate if necessary. _____

6A. PLACE OF PRODUCTION (State, County, and Field or Offshore Area and Block No.)

6B. INDICATE PERCENT OF 5B. ABOVE IN DISPUTED OFFSHORE ZONE. _____ %

6C. NAME OF PLANT AND PLANT OPERATOR (Indicate Nearest Town or City)

7. GAS QUALITY, DELIVERY CONDITIONS, AND REDUCTION FOR SUB-STANDARD GAS. 2/

A. IMPURITIES:	Content	Amount of Reduction
a. Hydrogen Sulphide (gr./Mcf)	_____	_____ ¢/Mcf
b. Total Sulphur (gr./Mcf)	_____	_____ ¢/Mcf
c. Carbon Dioxide (%)	_____	_____ ¢/Mcf
d. Water (lbs./Mcf)	_____	_____ ¢/Mcf
e. Other (Kind & Amount)	_____	_____ ¢/Mcf
f. Total Reduction for Impurities		_____ ¢/Mcf

B. DELIVERY PRESSURE

a. Actual Delivery Pressure (Psig) _____

b. Pressure Available at Point of Delivery (Psig). _____

c. Reduction for Sub-Standard Pressure _____ ¢/Mcf

C. DELIVERY POINT:

a. Actual Point at which Gas is first Delivered to Purchaser:
☐ Wellhead; ☐ Central Point; ☐ Tailgate; ☐ Offshore Platform; ☐ Other.

b. Point of Re-Delivery or Measurement for Payment if Applicable.
☐ Wellhead; ☐ Central Point; ☐ Tailgate; ☐ Offshore Platform; ☐ Other.

c. Reduction for Wellhead Delivery _____ ¢/Mcf

D. TOTAL REDUCTION FOR QUALITY AND DELIVERY DEFICIENCIES _____ ¢/Mcf

FOR COMMISSION USE ONLY

FPC GAS RATE SCHEDULE NO.

SUPPLEMENT NO.

CONN. NO.

DOCKET NO.

FILING DATE

EFFECTIVE DATE

8. HEAT CONTENT (Report average Btu Content of Sales Volumes used for Billing)

A. Average Btu Content (Btu/cu. ft.) 3/	_____	_____	_____
B. Btu Adjustment, Plus or (Minus). 3/	_____ ¢/Mcf	_____ ¢/Mcf	_____ ¢/Mcf

9. APPLICABLE AREA RATES FOR SALE 4/

A. Applicable Area Rate(s)	_____ ¢/Mcf	_____ ¢/Mcf	_____ ¢/Mcf
B. Applicable Area Rate(s) Less 7D Plus or Minus 9B	_____ ¢/Mcf	_____ ¢/Mcf	_____ ¢/Mcf
C. Rate(s) here Established (Lower of 9B or 10A	_____ ¢/Mcf	_____ ¢/Mcf	_____ ¢/Mcf
D. Basis for Area Base Rate	_____	_____	_____
E. Proportion of Gas at Each Rate 5/ (If unknown, Estimate).	_____ %	_____ %	_____ %

10. RATE SCHEDULE DATA

A. Contract Rate(s)	_____ ¢/Mcf	_____ ¢/Mcf	_____ ¢/Mcf
B. Current Rate as Filed 6/	_____ ¢/Mcf	_____ ¢/Mcf	_____ ¢/Mcf
C. Proportion of Gas at Each Rate	_____ %	_____ %	_____ %

(See reverse side for Signatures and Footnotes) FPC Form 142

[13,971]

FOOTNOTES:

1/ CHECK ONE OR MORE BOXES. INSERT APPROPRIATE DATE.

2/ NOT APPLICABLE TO CONTRACTS COVERED BY OPINION NO. 598.

3/ IF MORE THAN ONE BASE RATE IS APPLICABLE BY VIRTUE OF VARIATIONS IN DATES OF CONTRACTS, AMENDMENTS, AND/OR NEWLY DISCOVERED RESERVOIRS, OR DISPUTED OFFSHORE ZONE DELIVERIES; ENTER EACH BASE RATE DETERMINATION IN A SEPARATE VERTICAL COLUMN AND INDICATE ON LINE 9E THE BASIS FOR EACH RATE BY REFERENCE TO SECTION 4, OR SECTION 5ii.
FOR EXAMPLE - IF MORE THAN ONE BASE AREA RATE IS APPLICABLE DUE TO VINTAGE (SEC. 4), ENTER AFTER ITEM 9E EITHER 4A, 4B, AND/OR 4C AS APPROPRIATE.

4/ THE TOTAL PERCENT FOR THIS LINE SHOULD EQUAL THE TOTAL ANNUAL VOLUME ITEM 5.

5/ THIS IS THE CURRENTLY EFFECTIVE RATE UNDER THE RATE SCHEDULE, AS FILED IN ACCORDANCE WITH SECTION 154.94 OR AS CERTIFICATED UNDER SECTION 157.23 OF THE COMMISSION'S REGULATIONS.

6/REPORT AVERAGE BTU CONTENT OF SALES VOLUMES USED FOR BILLING.

[13,975]

Order Modifying Refund

[13,975]

[Caption Omitted]

ORDER MODIFYING REFUND FILING REQUIREMENTS AND GRANTING MOTION FOR EXTENSION OF TIME

(Issued October 20, 1971)

On July 16, 1971, we issued our Opinion No. 598 determining just and reasonable rates for jurisdictional sales of natural gas in Southern Louisiana. Our Order on Petition for Rehearing, Opinion No. 598-A, was issued September 9, 1971, which clarified and modified, in certain respects, Opinion No. 598.

In a related area rate proceeding, Texas Gulf Coast Area, Opinion No. 595, issued May 6, 1971, it was brought to our attention on rehearing that our filing requirements respecting refunds should be modified to indicate the refunds owed by each interest owner of the operator. Our Opinion No. 595-A therefore required the filing of supplemental refund reports. Although this matter was not brought to our attention on rehearing in Opinion No. 598, we wish to make this technical change at this time in order to prevent possible administrative problems in this regard. We shall therefore require each producer filing a refund report to show separately the refund obligation, with interest, of each working interest owner under each rate schedule. Any producer who has previously filed a refund report should file a supplemental report by December 13, 1971. Each producer shall also notify each working interest owner under each rate schedule of any refunds, including interest, applicable to its gross interest.

Order Modifying Refund

[13,976]

On October 6, 1971, Amoco Production Company filed a Motion for Extension of Time within which to file refund reports and make election pursuant to Ordering Paragraph (G) of Opinion Nos. 598 and 598-A. We find that good cause for such an extension has been stated by Amoco and will be so ordered.

The Commission orders:

(1) Ordering Paragraph (E) of Opinion No. 598 is amended by adding the following sentence after the first full sentence:

> Each producer within 30 days of filing a refund report shall notify each working interest owner under each rate schedule of any refunds, including interest, applicable to its gross interest.

(2) Ordering Paragraph (E) is amended by adding at the end of the paragraph:

(g) The refunds, including interest applicable to each working interest owner.

(3) The time for filing refund reports is extended until December 13, 1971.

(4) Amoco Production Company's Motion for Extension of Time in which to file refund reports and to make its election pursuant to Ordering Paragraph (G) is granted until December 13, 1971.

By the Commission.

KENNETH F. PLUMB,
Secretary.

(SEAL)

[13,977]

Notice of Change in Price Supplement No. 17

[13,977]

[Amoco Emblem]

AMOCO PRODUCTION COMPANY
Amoco Building
P.O. Box 50879
New Orleans, Louisiana 70150

July 21, 1971

NOTICE OF CHANGE IN PRICE SUPPLEMENT NO. 17 TO AMOCO PRODUCTION COMPANY

FPC Gas Rate Schedule No. 258
Vermilion Block 14 Field
Offshore, Louisiana

Mr. Kenneth F. Plumb,
Secretary
Federal Power Commission
441 "G" Street, N. W.
Washington, D. C. 20426

Dear Sir:

Pursuant to Section 4(D) of the Natural Gas Act, Section 154.94 of the Commission's regulations and Article XII of the subject gas sales contract, Amoco Production Company (Amoco) hereby gives notice to the Commission and to the public of the effectiveness of a change in price with respect to the sale of gas under the above-described rate schedule and respectfully requests that the Commission allow such change in price to become effective without requiring the 30 days' notice provided for in Section 4(D) of the Act and in the alternative, if such relief is denied, requests that such change in price become effective no later

[13,978]

than 30 days from the date of filing this notice.

1. Attached hereto is the form of notice prescribed as Commission Form No. 280 which contains the information to be furnished under Section 154.94 of the Commission regulations.

2. The name and address of the purchaser to whom this notice has been mailed is:

Trunkline Gas Company
P. O. Box 1642
Houston, Texas 77001

3. It is requested that all inquiries and correspondence regarding this notice be addressed to the following:

J. W. Howard, General Attorney
AMOCO PRODUCTION COMPANY
P. O. Box 591
Tulsa, Oklahoma 74102

and

James A. Barton III, Attorney
AMOCO PRODUCTION COMPANY
P. O. Box 50879
New Orleans, Louisiana 70150

4. This filing has no applicability to the prices and pricing provisions covered by the contract filed as a

[13,979]

rate schedule to the extent that such prices and pricing provisions relate to sales of natural gas in intrastate commerce.

5. Good cause exists to support allowing the change in price to which this notice pertains to take effect without requiring the 30-day notice provided in Section 4(D) of the Act. As is shown in "Response of Pan American Petroleum Corporation to Application of Associated Gas Distributors for Rehearing of Order No. 413" which was filed July 11, 1971, and as has been confirmed by Commission findings on Page 18 of Opinion No. 598, producers such as Amoco who have worked "within the system" are comparatively disadvantaged by Opinion No. 598 and the Commission's December 24, 1970, "Order granting in part and denying in part applications for rehearing of Order No. 413 and Order issued in Docket No. AR69-1". Such imposition of comparative

disadvantage upon producers who have worked "within the system" should not be carried forward.

Respectfully submitted,

AMOCO PRODUCTION COMPANY

Original Signed By: JAMES A. BARTON III
JAMES A. BARTON III
Attorney
P. O. Box 50879
New Orleans, Louisiana 70150

bcc: Mr. J. W. Howard
Mr. M. J. Flippo
Mr. E. A. Renfro
Mr. D. E. Woodard

Notice of Change in Price Supplement No. 17

[13,981]

NOTICE OF INDEPENDENT PRODUCER RATE CHANGE FILING
(Sections 154.94 (f) & (g) of Regulations)

§ 154.94 (f) Notice of change in rate level. (1) An independent producer who has sold in interstate commerce 5,000,000 Mcf of gas or less annually in each year of his operations during the preceding five years and who is proposing a contractual change in rates, charges, etc., shall file the information called for in the following form: (in triplicate, an original and two copies, to the Federal Power Commission, Washington 0.C., 20426. § 154.94 (g) A complete copy of all material filed pursuant to this section shall be furnished to each party to the rate schedule. With each such filing there shall be submitted to the Commission a list of the parties to whom such material has been furnished.

FOR COMMISSION USE ONLY
FPC GAS RATE
SCHEDULE NO.
SUPPLEMENT NO.
I.P. NO.
DOCKET NO.
FILING DATE
EFFECTIVE DATE

1. NAME OF PRODUCER
Amoco Production Company
ADDRESS OF PRODUCER
P. O. Box 50879, New Orleans, Louisiana 70150
2. NAME OF BUYER
Trunkline Gas Company, P. O. Box 1642, Houston, Texas 77001
3. LOCATION OF SALE (Field, County and State)
Vermilion Block 14 Field, Offshore, Louisiana
4.(a) FPC GAS RATE SCHEDULE NO.
258 Supplement No. 17
4.(b) BASIC CONTRACT DATE
6/26/58
5.(a) TYPE OF INCREASE (Periodic, Favored-nation, Renegotiated, etc)
Area Rate
5.(b) CONTRACT BASIS (Specify Contract Provision)
Article XII
5.(c) PROPOSED EFFECTIVE DATE
30 days from date of filing*
6. RATES IN CENTS PER MCF AT 15.025 (psia):

6.(a) PRESENT EFFECTIVE RATE:

Base Rate	Tax Reimbursement	Other * (Specify Separately)	Total Rate
22.25¢	included in base	rate None	22.25¢

6.(b) PROPOSED RATE:

Base Rate	Tax Reimbursement	Other * (Specify Separately)	Total Rate
22.375¢ 26.0¢**	included in base	rate None	22.375¢ 26.0¢**

7. STATEMENT OF ESTIMATED SALES VOLUME AND COMPARATIVE REVENUES FOR THE TWELVE MONTH PERIOD SUCCEEDING THE PROPOSED EFFECTIVE DATE (Shown with volume and rates at the same psia as in Item 6):

Estimated volume (Mcf)	5,527,323 1,018,958**	Revenues at present effective rate	$1,229,829 $226,718**
24,702,748***		$5,496,361***	
Revenues at proposed rate	$1,236,738 $264,929**	Difference in revenues	$6,909 $38,211**
$5,527,239***		$30,878***	

8. AVERAGE BTU CONTENT PER CUBIC FOOT OF THE GAS SOLD DURING THE LAST TWELVE-MONTH PERIOD 1009, 1000** ESTIMATED FOR THE SUCCEEDING TWELVE-MONTH PERIOD 1009, 1000**

REMARKS: *Unless waiver of 30-day notice as requested in attached transmittal letter is granted pursuant to Section 4(D) of the Act.

** See Supplement No. 16

*** Gas produced from reservoirs located in Zone 2

Delivery point - central point in the field

SIGNATURE	TITLE	DATE
Original Signed By: JAMES A. BARTON III	Attorney	JUL 21 1971

* Dehydration, Compression, Btu adjustment, etc.

FPC Form 280 (7-65)

[14,008]

FPC LETTER ORDER TO AMOCO PRODUCT COMPANY DATED SEPTEMBER 9, 1971

FEDERAL POWER COMMISSION
Washington, D.C. 20426

[Received Sep. 18, 1971, General Office, Law Department]

In Reply Refer To:
BNG-IP/GC

Amoco Production Company
P. O. Box 50879
New Orleans, Louisiana 70150

Attention: James A. Barton III, Esq.

Gentlemen:

The rate schedules and/or supplements listed herein have been accepted for filing to be effective as of the dates shown.

In the event that any of the documents comprising the listed rate schedules and/or supplements contain provisions for future automatic adjustments in rates and charges, your attention is directed to the fact that such provisions, when invoked to change the effective rates and charges, will constitute a change in such rates and charges within the meaning of Section 4 (d) of the Natural Gas Act and Section 154.94 of the Commission's Regulations under such Act. Any such changes should be filed with the Commission not more than 90 days nor less that 30 days prior to the proposed effective date thereof.

This acceptance for filing does not constitute authorization under Section 7 of the Natural Gas Act; nor shall it be construed as constituting approval of any rate or provisions contained in the rate filing; nor shall such acceptance be deemed as recognition of any claimed

contractual right or obligation associated therewith; and such acceptance is without prejudice to any findings or orders which have been or may hereafter be made by the Commision in any proceeding now pending or hereafter instituted by or against your company.

[14,009]

In future correspondence concerning the listed rate schedules and/or supplements, please refer to the FPC Gas Rate Schedule designation furnished you herewith, including the name of the independent producer and the rate schedule and supplement numbers.

Nothing in this letter is intended to relieve you of any responsibility imposed by the Statement of Policy Implementing the Economic Stabilization Act of 1970 (P.L. 91-379, 84 Stat. 799, as amended by P.L. 92-15, 85 Stat. 38) and Executive Order No. 11615 (copy enclosed), including such amendments as the Commission may require.

Very truly yours,

KENNETH F. PLUMB
Secretary

Enclosure No. 097778

cc: Amoco Production Company
P. O. Box 591
Tulsa, Oklahoma 74102
United Fuel Gas Company
Trunkline Gas Company
Transcontinental Gas Pipe Line Corporation
Southern Natural Gas Company
Sea Robin Pipeline Company
United Gas Pipe Line Company
Texas Gas Transmission Corporation
Michigan Wisconsin Pipe Line Company
Tennessee Gas Pipeline Company

[14,010]

FPC Letter Order to Amoco Product Company

[14,010]

Rate Schedule Designation

Amoco Production Company

Description of Document	Date of Letter of Transmittal	FPC Gas Rate Schedule No.	Supp. No.	Effective Date
Not. of change 7-21-71	7-21-71	78	21	9-19-71*
"	"	173*	46	"
"	"	258	17	"
"	"	388	7	"
"	"	393	11	"
"	"	437	9	"
"	"	509	11	"
"	"	514	4	"
"	"	522	4	"
"	"	525	4	"
"	"	526	5	"
"	"	527	5	"
"	"	528	5	"
"	"	533	6	"
"	"	536	3	"
"	"	537*	3	"
"	"	538	3	"
"	"	539	4	"
"	"	540	4	"
"	"	542	3	"
"	"	543	5	"
"	"	544	4	"
"	"	546	4	"
"	"	547	3	"
"	"	556*	2	"

* Pursuant to Opinion No. 598.

* (Operator), et al.

[14,011]

[Caption Omitted]

APPLICATION OF AMOCO PRODUCTION COMPANY FOR REHEARING

Amoco Production Company, Amoco, pursuant to Section 19(a) of the Natural Gas Act, 15 U.S.C. § 717r(a), and Section 1.34 of the Commission Rules, 18 C.F.R. § 1.34, applies with respect to letter orders dated September 9, 1971, accepting Supplement Nos. 21, 46, 17, 7, 11, 9, 11, 4, 4, 4, 5, 5, 5, 6, 3, 3, 3, 4, 4, 3, 5, 4, 4, 3, 2 and 2 to Amoco Rate Schedule Nos. 78, 173, 258, 388, 393, 437, 509, 514, 522, 525, 526, 527, 528, 533, 536, 537, 538, 539, 540, 542, 543, 544, 546, 547, 556 and 560, respectively, for rehearing insofar and only insofar as such letter orders deny Amoco's request for waiver of the 30 days' notice requirement of Section 4(d) of the Natural Gas Act, 15 U.S.C. § 717c(d) and prescribe as

[14,012]

an effective date of rate increases a date more than 30 days after the filing of notices of change in rate. Pursuant to Section 4(d) of the Natural Gas Act and Section 154.94 of Commission Regulations thereunder, Amoco on July 23, 1971, duly and properly filed with the Commission notices of the effectiveness of changes in rate applicable to sales of gas under Amoco Rate Schedules Nos. 78, *et al.*[1]

Contrary to the requirements of Section 4(d) of the Act and in excess of the Commission's authority under the Act, and contrary to Amoco's showing of good cause

[1] See above.

that such rate increases should be made effective without requiring full 30 days' notice, the Commission by letter orders dated September 9, 1971, postponed the effective date of such changes in rate to a date 58 days from the date that such notices were duly filed with and received by the Commission. Other than the statement "Pursuant to Opinion No. 598", such Commission letter orders do not state any reason for denial of the relief requested by Amoco or for denial of Amoco's rights under Section 4(d) of the Act.

Amoco did not join in or support the settlement proposal adopted in toto as the Commission's decision in Opinion No. 598 and thus did not waive its rights under Section 4(d) of the Act or authorize any other party to waive Amoco's rights under Section 4(d) of the Act. Regardless of purported Commission consent, other parties or groups of other parties do not have authority either to waive or dilute Amoco's rights under Section 4(d) of the Act or to empower the Commission to

[14,013]

take action to like effect. The fact that certain other parties in return for benefits not similarly applicable to Amoco may have agreed to waive their rights under Section 4(d) of the Act does not constitute a basis for denial of the relief requested by Amoco.

As is admitted in Opinion No. 598, Amoco is "comparatively disadvantaged" under the settlement adopted as the Commission's decision,[2] and as recognized in Opinion No. 598-A were it not for certain benefits primarily attributable to others, Amoco might well have been allowed "greatly" higher rates.[3] Thus, good cause exists showing

[2] Paragraph 38 on Page 18.

[3] Page 5.

that, as to Amoco, the 30-day notice period should be waived with respect to increases in rates to the just and reasonable area rates determined by the Commission.

Section 4 of the Act clearly contemplates that the burdens thereof fall equally and indiscriminately among natural gas companies and groups of natural gas companies. The Natural gas Act does not contemplate that the Commission may increase the burdens of one group of natural gas companies so as to mitigate or eliminate regulatory burdens of another group. Amoco's right to collect just and reasonable rates stands on the same footing as the right of natural gas companies purchasing from Amoco to collect just and reasonable rates. Because of unavoidable delays under the area rate method, because of the effect on Amoco of mortaria, and because of contracting limitations prescribed

[14,014]

in Section 154.93 of the Commission Regulations which are applicable to Amoco but not to pipeline purchasers, Amoco's right to just and reasonable rates had on July 16, 1971, already been deferred for an unconscionably long period. The Commission attempt to amend Section 4(d) of the Act to further delay and defer Amoco's collection of just and reasonable rates so as to relieve other natural gas companies from the economic effects of the 30-day notice period prescribed in Section 4(d) of the Act is clearly unlawful, discriminatory, arbitrary and capricious.

Even if such unequal shifting of burdens was permitted by the Act and not prohibited by the Constitution of the United States, such action is not supported by substantial evidence in this instance. The Commission's September 9, 1971 letter orders, to which reference is made

above, do not contain findings or references to evidence showing that its action does not amount to unjust enrichment of others at the expense of Amoco. The Commission did not make findings showing that, when the effect of rate reductions and cash refunds ordered by Opinion No. 598 are considered, an economic detriment exists from which pipeline purchasers can or should be protected. The Commission does not show that the rate increases sought by Amoco will not be more than offset by rate decreases ordered by Opinion No. 598 effective August 1, 1971. At the very least, the Commission should have specified August 1, 1971, as the effective date of the rate changes to which this application applies.

Under the provisions of the settlement proposal adopted by the Commission in its Opinion No. 598, producers other than Amoco that agreed to waiver of Section 4(d) rights had high October 1, 1968 rates

[14,015]

that were collected until August 1, 1971, free from the effect of moratoria imposed by the Commission. Amoco, that had worked within Commission policy and thus had low October 1, 1968 rates, is adversely affected by Commission-imposed moratoria and by Commission action deferring effectiveness of rate changes to just and reasonable rates. At the very least, the Commission should make some small contribution to mitigation of inequitable treatment by allowing Amoco's changes in rates to become effective August 1, 1971, to offset rate reductions and refunds applicable to gas purchased from other producers with high October 1, 1968 rates that were carried forward to August 1, 1971.

Application of Amoco Production Company for Rehearing

WHEREFORE, Amoco Production Company respectfully requests that rehearing be granted on the "Effective date" provisions of the above-referenced letter orders and that such letter orders be amended to prescribe an effective date of changes in rates no later than August 1, 1971.

Respectfully submitted,

WM. H. EMERSON
P. O. Box 591
Tulsa, Oklahoma 74102

Attorney for
AMOCO PRODUCTION COMPANY

Dated at Tulsa, Oklahoma
October 6, 1971

[14,017]

Order Denying Application for Rehearing

[14,017]

[Caption Omitted]

ORDER DENYING APPLICATION FOR REHEARING

(Issued November 2, 1971)

Amoco Production Company (Amoco) filed an application for rehearing on October 7, 1971 with respect to the Commission's letter orders issued September 9, 1971 accepting increased rate supplements to the rate schedules designated in the caption pertaining to jurisdictional sales in the Southern Louisiana Area. These orders denied Amoco's request for waiver of the 30 day statutory notice period provided in Section 4(d) of the Natural Gas Act and prescribed an effective date of September 19, 1971 for these filings which were made on July 23, 1971. The effective date provided in these orders is in accord with the provisions of Ordering Paragraph (C) of Opinion No. 598 issued July 16, 1971 in *Area Rate Proceeding, et al.* (Southern Louisiana Area), Docket Nos. AR61-2, *et al.*, AR69-1.

[14,018]

In its application for rehearing Amoco contends that this Commission has no power to defer the effective date of an acceptable increase beyond the 30 day notice period provided in Section 4(d) of the Act. Amoco also argues that the 30 day notice period should be waived and its increases accepted no later than August 1, 1971.

The Commission in Opinion No. 598-A issued September 9, 1971 denied, *inter alia*, Amoco's application for rehearing of Opinion No. 598 with respect to the same issue it seeks to raise here regarding the proper effective

date for an acceptable increase. A number of petitions for judicial review of that case have been filed. The first petition was filed in the United States Court of Appeals for the Fifth Circuit in *Placid Oil Company, et al.* v. *F.P.C.*, CA5 No. 71-2761. Consequently, there is no need to discuss this matter here. Any question as to the validity of the Commission's action will be decided upon judicial review of that case.

Amoco's application for rehearing presents no new facts or principles of law which were not fully considered by the Commission in its September 9 orders, or which having now been considered, warrant any modification of those orders.

The Commission orders:

The application for rehearing filed by Amoco on October 7, 1971 is denied.

By the Commission.

KENNETH F. PLUMB,
Secretary.

(SEAL)

[14,019]

Notice of Change in Price Supplement No. 18

[14,019]

[Amoco Emblem]

[Received Aug. 6, 3:09 p.m., '71, FPC]

AMOCO PRODUCTION COMPANY
Amoco Building
P.O. Box 50879
New Orleans, Louisiana 70150

August 3, 1971

NOTICE OF CHANGE IN PRICE SUPPLEMENT NO. 18 TO AMOCO PRODUCTION COMPANY FPC GAS RATE SCHEDULE NO. 160

Cameron Field
Cameron Parish, Louisiana
Planulina 2 Sand Reservoir B

Mr. Kenneth F. Plumb,
Secretary
Federal Power Commission
441 "G" Street, N. W.
Washington, D. C. 20426

Dear Sir:

Pursuant to Section 4(D) of the Natural Gas Act, Section 154.94 of the Commission's regulations and Article 11 of the subject gas sales contract, Amoco Production Company (Amoco) hereby gives notice to the Commission and to the public of the effectiveness of a change in price with respect to the sale of gas under the above-described rate schedule and respectfully requests that the Commission allow such change in price to become effective without requiring the 30 days' notice provided for in Section 4(D) of the Act and in the alter-

native, if such relief is denied, requests that such change in price become effective no later

[14,020]

than 30 days from the date of filing this notice.

1. Attached hereto is the form of notice prescribed as Commission Form No. 280 which contains the information to be furnished under Section 154.94 of the Commission regulations.

2. The name and address of the purchaser to whom this notice has been mailed is:

Michigan Wisconsin Pipeline Company
One Woodward Avenue
Detroit, Michigan 48226

3. It is requested that all inquiries and correspondence regarding this notice be addressed to the following:

J. W. Howard, General Attorney
AMOCO PRODUCTION COMPANY
P. O. Box 591
Tulsa, Oklahoma 74102

and

James A. Barton III, Attorney
AMOCO PRODUCTION COMPANY
P. O. Box 50879
New Orleans, Louisiana 70150

4. This filing has no applicability to the prices and pricing provisions covered by the contract filed as a

[14,021]

rate schedule to the extent that such prices and pricing provisions relate to sales of natural gas in intrastate commerce.

5. Good cause exists to support allowing the change in price to which this notice pertains to take effect without requiring the 30-day notice provided in Section 4(D) of the Act. As is shown in "Response of Pan American Petroleum Corporation to Application of Associated Gas Distributors for Rehearing of Order No. 413" which was filed July 11, 1971, and as has been confirmed by Commission findings on Page 18 of Opinion No. 598, producers such as Amoco who have worked "within the system" are comparatively disadvantaged by Opinion No. 598 and the Commission's December 24, 1970, "Order granting in part and denying in part applications for rehearing of Order No. 413 and Order issued in Docket No. AR 69-1". Such imposition of comparative

disadvantage upon producers who have worked "within the system" should not be carried forward.

6. The instant change in price is only applicable to gas produced from the captioned reservoir and only to the extent that gas produced from said reservoir is being delivered under the captioned gas sale.

7. In support of said change in price and pursuant to Ordering Paragraph (D) of the Order accompanying FPC Opinion No. 567, Amoco is filing concurrently herewith as Exhibits "B", "C", and "D", respectively, a copy of a "Well Completion or Recompletion Report," commonly referred to as a "form—Comp." which document is on file with the Conservation Department of the State of Louisiana, an affidavit indicating that the completion date shown on said form—comp. is the discovery date of the subject reservoir and an acknowledgment by the purchaser that the gas produced from said reservoir, to the

extent that same is dedicated under the captioned gas sales contract, qualifies for the price sought.

Respectfully submitted,

AMOCO PRODUCTION COMPANY

Original Signed By: JAMES A. BARTON III
JAMES A. BARTON III
Attorney
P. O. Box 50879
New Orleans, Louisiana 70150

[14,023]

Notice of Change in Price Supplement No. 18

[14,023]

EXHIBIT A

NOTICE OF INDEPENDENT PRODUCER RATE CHANGE FILING
(Sections 154.94 (f) & (g) of Regulations)

§ 154.94 (f) Notice of change in rate levels. (1) An independent producer who has sold in interstate commerce 3,000,000 Mcf of gas or less annually in each year of his operations during the preceding five years and who is proposing a contractual change in rates, charges, etc., shall file the information called for in the following forms in triplicate, an original and two copies, to the Federal Power Commission, Washington D.C., 20426.) § 154.94 (g) A complete copy of all material filed pursuant to this section shall be furnished to each party to the rate schedule. With each such filing there shall be submitted to the Commission a list of the parties to whom such material has been furnished.

FOR COMMISSION USE ONLY
FPC GAS RATE
SCHEDULE NO.
SUPPLEMENT NO.
I.P. NO.
DOCKET NO.
FILING DATE
EFFECTIVE DATE

1. NAME OF PRODUCER
Amoco Production Company

ADDRESS OF PRODUCER
P. O. Box 50879, New Orleans, Louisiana 70150

2. NAME OF BUYER
Michigan-Wisconsin Pipeline Company, One Woodward Avenue 48226

3. LOCATION OF SALE (Field, County and State)
Cameron Field, Cameron Parish, Louisiana (Planulina 2 Sand Reservoir B)

4.(a) FPC GAS RATE SCHEDULE NO.: 160 Supplement No. 18
4.(b) BASIC CONTRACT DATE: 6/1/53

5.(a) TYPE OF INCREASE (Periodic, favored-nation, renegotiated, etc): Opinion No. 567 Reservoir increase
5.(b) CONTRACT BASIS (Specify Contract Provision): Article 11
5.(c) PROPOSED EFFECTIVE DATE: 30 days from date of filing*

6. RATES IN CENTS PER MCF AT 15.025 (psia):

6.(a) PRESENT EFFECTIVE RATE:

Base Rate	Tax Reimbursement	Other * (Specify Separately)	Total Rate
22.375¢	included in base rate	None	22.375¢

6.(b) PROPOSED RATE:

Base Rate	Tax Reimbursement	Other * (Specify Separately)	Total Rate
26.0¢	included in base rate	None	26.0¢

7. STATEMENT OF ESTIMATED SALES VOLUME AND COMPARATIVE REVENUES FOR THE TWELVE MONTH PERIOD SUCCEEDING THE PROPOSED EFFECTIVE DATE (Shown with volume and rates at the same psia as in Item 6):

Estimated volume (Mcf)	Revenues at present effective rate
511,000	$114,336.25
Revenues at proposed rate	**Difference in revenues**
$132,860.00	$18,523.75

8. AVERAGE BTU CONTENT PER CUBIC FOOT OF THE GAS SOLD DURING THE LAST TWELVE-MONTH PERIOD 1028
ESTIMATED FOR THE SUCCEEDING TWELVE-MONTH PERIOD 1028

REMARKS:

Delivery point - central point in field.

*Unless waiver of 30-day notice as requested in attached transmittal letter is granted pursuant to Section 4(D) of the Act.

SIGNATURE	TITLE	DATE
For: [illegible]	Attorney	8/3/71

* Dehydration, Compression, Btu adjustment, etc.

FPC Form 580 (1-65)

Notice of Change in Price Supplement No. 18

[14,024]

EXHIBIT B

[Received Aug. 6, 3:10 p.m., '71, FPC]

STATE OF LOUISIANA

WELL COMPLETION OR RECOMPLETION REPORT

——————— District Re: Well Serial No.: 051273

Completed	☐	Flowing	☒
Recompleted	☐	Gas-Lifting	☐
Oil	☐	Pumping	☐
Gas	☒	Shut-In	☐

Operator: Amoco Production Company
Well Name: L. A. Davis B
Well No.: 1, Sec. 36, Twp. 168, Rge. 100
Filed Cameron
Parish Cameron

Date Completed or Recompleted May 26 at 7:00 (a.m.)

COMPLETION DATA

Initial Production 20 BOPD — Gas Volume 3500 MCF/Day Tubing Pressure 3150 psig — Casing Pressure 0 psig Choke Size 16/64 Positive —— Adjustable —— B.S. & W. 2/10% Gas/Oil Ratio 175000 CF/Bbl. —— Gravity 48.8 at 60° A. P. I. Producing Depth: From 9893 Ft. to 9908 Ft. T. D. 9972 PBD Ft.

Name of Producing Sand: P-2 (Reservoir B)

*New Pool *Old Pool List Reason(s) for Pool Classification New Pool

*As Defined in Statewide Order No. 29-H.

[14,024]

Notice of Change in Price Supplement No. 18

Additional clearance is requested for ——— barrels of oil produced on drill stem or other production tests (See Section X, Paragraph B of Order No. 29-B on reverse side).

Three (3) copies to be filed with the District Office within three (3) days of date of completion or recompletion (as per Order 29-B, Section X, Paragraph A, Article I).

DISTRICT MANAGER ONLY

29-E Compliance — Yes—— No——

29-E Unit Attached — Yes—— No——

Date: ———————————

I hereby certify that the above information is true and correct to the best of my knowledge.

AMOCO PRODUCTION COMPANY
Company

Original Signed By: J. W. BRICE
Company Representative
Area Engineer
Title

Form—Comp.

Notice of Change in Price Supplement No. 18

[14,025]

EXHIBIT C

[Received Aug. 6, 3:10 p.m., '71, FPC]

STATE OF LOUISIANA
PARISH OF ORLEANS

AFFIDAVIT OF RESERVOIR DISCOVERY DATE

R. M. Darling, being first duly sworn, deposes and says that he is the Division Production Manager for the New Orleans Division of Amoco Production Company, that the attached State Form-Comp. is on file with the Department of Conservation for the State of Louisiana, and a matter of public record, that the completion date for the Amoco Production Company-operated J. A. Davis B Well No. 1, shown on said report, represents the discovery date of the Planulina 2 Sand Reservoir B, Cameron Field, and that the section of the Form-Comp. pertaining to "Pool classification, as defined in Statewide Order No. 29-H", applies to oil wells only and has no significance for gas wells.

He further states that a study of the subsurface data establishes that prior to May 26, 1971, there were no other wells producing from the Planulina 2 Sand Reservoir B, Cameron Field, Cameron Parish, Louisiana, until Amoco Production Company completed their J. A. Davis B Well No. 1, Section 36-14S-10W, through perforations 9898'-9908'.

/s/ R. M. Darling
R. M. DARLING

SUBSCRIBED and SWORN to before me, a Notary Public in and for the Parish of Orleans, State of Louisiana, on this [Illegible] day of [Illegible], 1971.

/s/ R. Cornelius Smith
R. CORNELIUS SMITH
Notary Public
Parish of Orleans
State of Louisiana
My commission is issued
for life

Notice of Change in Price Supplement No. 18

[14,026]

EXHIBIT "D"

[Amoco Emblem]

[Received Aug. 6, 3:10 p.m., '71, FPC]

AMOCO PRODUCTION COMPANY
Amoco Building
P.O. Box 50879
New Orleans, Louisiana 70150

July 12, 1971

File: EAR-N-2903

Re: Rate Filings Made Pursuant to Changes in Commission Regulations and Policy Promulgated in Opinion No. 567, Issued October 3, 1969

Michigan Wisconsin Pipe Line Company
Suite 1610 Post Oak Tower
Houston, Texas 77027

Gentlemen:

Enclosed are copies of the documentary evidence Amoco Production Company intends to file with the Federal Power Commission to show that the gas produced from the Planulina 2 Sand Reservoir B in the Cameron Field, Cameron Parish, Louisiana qualifies as a newly discovered reservoir within the meaning of the Commission Regulations and Policies promulgated in Opinion No. 567, issued October 3, 1969.

[14,026]

Notice of Change in Price Supplement No. 18

The gas attributable to this reservoir is being produced from properties covered by a gas purchase contract, with you dated June 1, 1953. The contract has been designated by the FPC as Amoco's Rate Schedule No. 160.

The effect of the discovery date upon the price for the gas well gas produced from this reservoir will be to enable Amoco to collect a ceiling price of 26.0¢ per MCF, as adjusted for quality standards, pursuant to Order No. 413, as modified, with a refund floor established by Opinion No. 546 of 20.0¢ per MCF, or any price subsequently established by the Commission applicable to gas of this vintage.

If you agree and concur with us that this reservoir qualifies as a newly discovered reservoir within the meaning of Opinion No. 567, please so indicate in the space provided below and return the original and one copy of same to us for our further handling with the FPC. In accordance with Opinion No. 567, if you do not agree with Amoco's position, please furnish a statement to that effect, and give the reasons why you do not concur.

Yours very truly,

/s/ E. A. Renfro

Agreed to and concurred with
this 22nd day of July, 1971

MICHIGAN WISCONSIN PIPE LINE COMPANY

By /s/ [Illegible]

Notice of Change in Price Supplement No. 33

[14,027]

[Amoco Emblem]

[Received Sep. 2, 8:41 a.m., '71, FPC]

AMOCO PRODUCTION COMPANY
Amoco Building
P.O. Box 50879
New Orleans, Louisiana 70150

August 31, 1971

NOTICE OF CHANGE IN PRICE SUPPLEMENT NO. 33 TO AMOCO PRODUCTION COMPANY FPC GAS RATE SCHEDULE NO. 190

(Amoco Production Company
Contract No. 35,293)
Main Marginulina Howei
Sand Reservoir
South Thornwell Field
Cameron and Jefferson
Davis Parishes, Louisiana

Mr. Kenneth F. Plumb,
Secretary
Federal Power Commission
441 "G" Street, N. W.
Washington, D. C. 20426

Dear Sir:

Pursuant to Article V of the subject gas sales contract, as authorized by FPC Opinion No. 567 issued October 3, 1969, Amoco Production Company (Amoco), an independent producer, hereby gives notice to the Commission and to the public of the effectiveness of a change in price with respect to the sale of gas under the above rate schedule.

[14,027]

Notice of Change in Price Supplement No. 33

1. The information required to be furnished by Section 154.94 of the Commission's Regulations is set forth on Exhibit "A" hereto.

[14,028]

2. The instant change in price is only applicable to gas produced from the captioned reservoir and only to the extent that gas produced from said reservoir is being delivered under the captioned gas sale.

3. In support of said change in price and pursuant to Ordering Paragraph (D) of the Order accompanying FPC Opinion No. 567, Amoco is filing concurrently herewith as Exhibits "B" and "C", respectively, a copy of a "Well Completion or Recompletion Report", commonly referred to as a "form-comp." which document is on file with the Conservation Department of the State of Louisiana and an affidavit indicating that the completion date shown on said form-comp. is the discovery date of the subject reservoir. A letter agreement dated June 22, 1971, in which the purchaser and the producers agreed to the price being sought for such newly discovered reservoir, has been filed with the FPC as Supplement No. 32 to the captioned rate schedule.

4. This filing has no applicability to the prices and pricing provisions covered by the contract filed as a rate schedule to the extent that such prices and pricing provisions relate to the sales of natural gas in intrastate commerce.

[14,029]

5. The name and address of the purchaser to whom this notice, with attachments, has been mailed is:

United Fuel Gas Company
P. O. Box 1273
Charleston, West Virginia 23525

6. It is requested that all inquiries and correspondence regarding this notice be addressed to the following:

J. W. Howard, General Attorney
Amoco Production Company
P. O. Box 591
Tulsa, Oklahoma 74102

and

James A. Barton III, Attorney
Amoco Production Company
P. O. Box 50879
New Orleans, Louisiana 70150

Respectfully submitted,

AMOCO PRODUCTION COMPANY

Original Signed By: JAMES A. BARTON III
JAMES A. BARTON III
Attorney
P. O. Box 50879
New Orleans, Louisiana 70150

JAB/dlr
Attachments

[14,030]

Notice of Change in Price Supplement No. 33

[14,030]

EXHIBIT A

NOTICE OF INDEPENDENT PRODUCER RATE CHANGE FILING
(Sections 154.94 (f) & (g) of Regulations)

FOR COMMISSION USE ONLY

FPC GAS RATE SCHEDULE NO.
SUPPLEMENT NO.
I.P. NO.
DOCKET NO.
FILING DATE
EFFECTIVE DATE

§ 154.94 (f) Notice of change in rate by (1) An independent producer who has sold in interstate commerce 5,000,000 Mcf of gas or less annually in each year of his operations during the preceding five years and who is proposing a contractual change in rates, charges, etc., shall file the information called for in the following form (in triplicate, an original and two copies, to the Federal Power Commission, Washington D.C., 20426.) § 154.94 (g) A complete copy of all material filed pursuant to this section shall be furnished to each party to the rate schedule. With each such filing there shall be submitted to the Commission a list of the parties to whom such material has been furnished.

1. NAME OF PRODUCER
Amoco Production Company

ADDRESS OF PRODUCER
P. O. Box 50879, New Orleans, Louisiana 70150

2. NAME OF BUYER
United Fuel Gas Company, P. O. Box 1273, Charleston, West Virginia 235

3. LOCATION OF SALE (Field, County and State) Main Marginulina Howel Sand Reservoir South Thornwell Field, Cameron and Jefferson Davis Parishes, Louisiana

4.(a) FPC GAS RATE SCHEDULE NO.	4.(b) BASIC CONTRACT DATE
190	2/8/56

5.(a) TYPE OF INCREASE (Periodic, favored-nation, renegotiated, etc)
Opinion No. 567

5.(b) CONTRACT BASIS (Specify Contract Provision)	5.(c) PROPOSED EFFECTIVE DATE
Article V	30 days from date of filing the instant notice with the Commission

6. RATES IN CENTS PER MCF AT 15.025 (psia):

6.(a) PRESENT EFFECTIVE RATE:

Base Rate	Tax Reimbursement	Other * (Specify Separately)	Total Rate
22.375¢	included in base	rate None	22.375¢

6.(b) PROPOSED RATE:

Base Rate	Tax Reimbursement	Other * (Specify Separately)	Total Rate
26.0¢	included in base	rate None	26.0¢

7. STATEMENT OF ESTIMATED SALES VOLUME AND COMPARATIVE REVENUES FOR THE TWELVE MONTH PERIOD SUCCEEDING THE PROPOSED EFFECTIVE DATE (Shown with volume and rates at the same psia as in Item 6):

Estimated volume (Mcf)	Revenues at present effective rate
2,737,500	$612,515.63
Revenues at proposed rate	**Difference in revenues**
$711,750.00	$99,234.37

8. AVERAGE BTU CONTENT PER CUBIC FOOT OF THE GAS SOLD DURING THE LAST TWELVE-MONTH PERIOD 1034
ESTIMATED FOR THE SUCCEEDING TWELVE-MONTH PERIOD 1034

REMARKS:

Delivery Point - central point in field

SIGNATURE	TITLE	DATE
Original Signed By: JAMES A. BARTON III	Attorney	8/31/71

* Dehydration, Compression, Btu adjustment, etc.

FPC Form 380
(7-65)

Notice of Change in Price Supplement No. 33

[14,031]

EXHIBIT "B"

[Received Sep. 2, 8:41 a.m., '71, FPC]

DEPARTMENT OF CONSERVATION
STATE OF LOUISIANA

WELL COMPLETION OR RECOMPLETION REPORT

Lake Charles District Re: Well Serial No.: 136617

Completed	☒	Flowing	☒
Recompleted	☐	Gas-Lifting	☐
Oil	☐	Pumping	☐
Gas	☒	Shut-In	☐

Operator: Amoco Production Company
Well Name: Lacassane Company, Inc. B
Well No.: 8, Sec. 7, Twp. 12S, Rge. 4W
Field: South Thornwell
Parish: Louisiana

Date Completed or Recompleted August 13, 1971 at 7:00 (a.m.)

COMPLETION DATA

Initial Production 188 BOPD — Gas Volume 6,656 MCF/Day Tubing Pressure 8450 psig — Casing Pressure — psig Choke Size 14/64 Positive —— Adjustable —— B.S. & W. 5/10% Gas/Oil Ratio 35,404 CF/Bbl. —— Gravity 42.8 at 60° A.P.I. Producing Depth: From 12808 Ft. to 12818 Ft., 12826 Ft. to 12834 Ft., 12842 Ft. to 12848 Ft. T. D. 13,100 Ft. PBD 12,885

[14,031]

Notice of Change in Price Supplement No. 33

Name of Producing Sand: Main MH

*New Pool *Old Pool List Reason(s) for Pool Classification New Pool

*As Defined in Statewide Order No. 29-H.

Additional clearance is requested for ——— barrels of oil produced on drill stem or other production tests (See Section X, Paragraph B of Order No. 29-B on reverse side).

Three (3) copies to be filed with the District Office within three (3) days of date of completion or recompletion (as per Order 29-B, Section X, Paragraph A, Article 1).

DISTRICT MANAGER ONLY

29-E Compliance — Yes—— No——
29-E Unit Attached — Yes—— No——

Date: _____

I hereby certify that the above information is true and correct to the best of my knowledge.

AMOCO PRODUCTION COMPANY
Company

Original Signed By: J. W. BRICE
Company Representative
Area Engineer
Title

Form—Comp.

Notice of Change in Price Supplement No. 33

[14,032]

EXHIBIT "C"

[Received Sep. 2, 8:41 a.m., '71, FPC]

STATE OF LOUISIANA
PARISH OF ORLEANS

AFFIDAVIT OF RESERVOIR DISCOVERY DATE

P. J. EARLY, being first duly sworn, deposes and says that he is the Division Engineer for the New Orleans Division of Amoco Production Company, that the attached State Form-Comp. is on file with the Department of Conservation for the State of Louisiana, and a matter of public record that the completion date for the Amoco Production Company-operated Lacassane Co., Inc. "B" Well No. 8 shown on said report represents the discovery date of the Main Marginulina Howei Sand Reservoir, South Thornwell Field, and that the section of the Form-Comp. pertaining to "Pool classification, as defined in Statewide Order No. 29-H", applies to oil wells only and has no significance for gas wells.

He further states that subsurface data proves that prior to August 13, 1971, there were no wells producing from the Main Marginulina Howei Sand Reservoir, when Amoco completed its Lacassane Co. Inc. B Well No. 8, Section 7-12S-4W, South Thornwell Field, Cameron Parish, Louisiana, through perforations 12,808-12,818, 12,826-12,834, and 12,842-12,848'. The new discovery was made when Amoco drilled the Lacassane Co., Inc. B Well No. 8 in August, 1971.

/s/ P. J. Early
P. J. EARLY

SUBSCRIBED and SWORN to before me, a Notary Public in and for the Parish of Orleans, State of Louisiana, on this 24th day of August, 1971.

/s/ R. Cornelius Smith
R. CORNELIUS SMITH
Notary Public
Parish of Orleans
State of Louisiana
My commission is issued
for life

FPC Letter Order Issued October 13, 1971

[14,033]

Interoffice Files

Address All Communications
to the Secretary
Gas Corres.

FEDERAL POWER COMMISSION
Washington, D. C. 20426

1. Dockets
2. Files

In Reply Refer To:
BNG-IP/GC

Amoco Production Company
P. O. Box 50879
New Orleans, Louisiana 70150

Gentlemen: Oct. 13, 1971

The rate schedules and/or supplements listed herein have been accepted for filing to be effective as of the dates shown.

In the event that any of the documents comprising the listed rate schedules and/or supplements contain provisions for future automatic adjustments in rates and charges, your attention is directed to the fact that such provisions, when invoked to change the effective rates and charges, will constitute a change in such rates and charges within the meaning of Section 4(d) of the Natural Gas Act and Section 154.94 of the Commission's Regulations under such Act. Any such changes should be filed with the Commission not more than 90 days nor less than 30 days prior to the proposed effective date thereof.

This acceptance for filing does not constitute authorization under Section 7 of the Natural Gas Act; nor

shall it be construed as constituting approval of any rate or provisions contained in the rate filing; nor shall such acceptance be deemed as recognition of any claimed contractual right or obligation associated therewith; and such acceptance is without prejudice to any findings or orders which have been or may hereafter be made by the Commission in any proceeding now pending or hereafter instituted by or against your company.

In future correspondence concerning the listed rate schedules and/or supplements, please refer to the FPC Gas Rate Schedule designation furnished you herewith, including the name of the independent producer and the rate schedule and supplement numbers.

The rate schedule is effective as of the date provided herein or such later date as may be authorized under Executive Order No. 11615. The acceptance and effectiveness of the filings does not relieve you of any responsibility imposed by, and is expressly subject to, the Commission's Statement of Policy Implementing the Economic Stabilization Act of 1970 (P.L. 91-379, 84 Stat. 799 as amended by P.L. 92-15, 85 Stat. 38), including such amendments as the Commission may require, and Executive Order No. 11615.

Very truly yours,

/s/ Kenneth F. Plumb
KENNETH F. PLUMB
Secretary
Rate Schedule Designation
Amoco Production Company
(Operator), et al.

FPC Letter Order Issued October 13, 1971

cc: Amoco Production Company
P. O. Box 591
Tulsa, Oklahoma 74102
Michigan Wisconsin Pipe Line Company
United Fuel Gas Company

Description of Document	Date of Letter of Transmittal	FPC Gas Rate Schedule No.	Supplement Number	Effective Date
Not. of change [1]	8- 3-71	160	18	11-4-71*
Not. of change [2]	8-31-71	190	33	12-1-71*

* Pursuant to Opinion No. 598.

[1] Includes documents required by Opinion No. 567 and applicable to the Planulina 2 Sand Reservoir B.

[2] Includes documents required by Opinion No. 567 and applicable to the Main Marginulina Howei Sand Reservoir.

BNG/Badzik, S.S.:brr/10-8-71
IP72-124 Control No. 164390, 164905

[14,034]

FPC Letter Dated October 15, 1971

[14,034]

FEDERAL POWER COMMISSION
Washington 20426

OGC
Docket Nos. AR61-2, *et al.*,
AR69-1
Southern Louisiana Area
Rate Proceeding

Amoco Production Company
Amoco Building
P. O. Box 591
Tulsa, Oklahoma 74102

Oct. 15, 1971

Attention: Wm. H. Emerson, Esquire

Gentlemen:

This is in response to your letter of September 29, 1971, concerning the last sentence in Ordering Paragraph (C) of Opinion No. 598 issued July 16, 1971, in the above-entitled proceedings and its relationship to Sections 4.1 through 4.3 of the Settlement Proposal approved in that opinion.

The last sentence in Ordering Paragraph (C) of the opinion relates only to those rate increases permitted under Section 4.1 of the Settlement Proposal which are not filed within 20 days of the issuance of the opinion. It has no applicability to those rate increases filed pursuant to Sections 4.2 or 4.3 of the Settlement Proposal. The latter increases, of course, will not become effective earlier than 65 days from the date of filing as provided in Sections 4.2 and 4.3 of the Settlement Proposal, or the contractually due date, whichever is later.

Very truly yours,

Secretary

Application of Amoco Production Company for Rehearing

[14,035]

[Received Nov. 12, 8:44 a.m., '71, FPC]

[Caption Omitted]

APPLICATION OF AMOCO PRODUCTION COMPANY FOR REHEARING

Amoco Production Company, Amoco, pursuant to Section 19(a) of the Natural Gas Act, 15 U.S.C. § 717r(a) and Section 1.34 of the Commission Rules, 18 C.F.R. § 1.34, applies with respect to letter order dated October 13, 1971, accepting Supplements No. 18 and 33 to Amoco Rate Schedules No. 160 and 190, respectively, for rehearing insofar as such letter order prescribes an effective date of changes in rate more than 30 days from the date of filing.

Pursuant to Section 4(d) of the Natural Gas Act, 15 U.S.C. § 717c(d) and Section 154.94 of Commission Regulations thereunder, 18 C.F.R. § 154.94, Amoco duly gave 30 days' notice to the Commission and to the public of the effectiveness of changes in rate by properly filing its notices with the Commission as Supplements No. 18 and 33 to its Rate Schedules No. 160 and 190, respectively. Contrary to such notices of changes in rate and Section 4(d) of the Act and in excess of

[14,036]

Commission authority under the Act, the Commission by letter order dated October 13, 1971, postponed the effective date of such changes in rate to a date 90 days from the date such notices were duly filed with and received by the Commission. Other than the statement "Pursuant to Opinion No. 598" such letter order did not state any

reason for denial of the relief requested by Amoco or for denial of Amoco's rights under Section 4(d) of the Act.

Amoco did not join in or support the settlement proposal adopted by the Commission as its Opinion No. 598 and thus did not waive its rights under Section 4(d) of the Act. Regardless of purported Commission consent, other parties or groups of other parties do not have authority either to waive or dilute Amoco's rights under Section 4(d) of the Act or to empower the Commission to take action to like effect. The fact that certain other parties in return for benefits not similarly applicable to Amoco may have agreed to waive their rights under Section 4(d) of the Act does not constitute a basis for denial of the relief requested by Amoco. As is admitted in Opinion No. 598, Amoco is "comparatively disadvantaged" under the settlement adopted as the Commission's decision,[1] and as recognized in Opinion No. 598-A were it not for certain benefits primarily attributable to others, Amoco might well have been allowed "greatly" higher rates.[2]

[1] Paragraph 38 on page 18.

[2] Page 5.

[14,037]

WHEREFORE, Amoco Production Company respectfully requests that rehearing be granted on the "Effective date" provisions of the above-referenced letter order and that such letter order be amended to prescribe an effective date of changes in rates no later than 30 days from the date of filing with the Commission.

Respectfully submitted,

/s/ Wm. H. Emerson
WM. H. EMERSON
P. O. Box 591
Tulsa, Oklahoma 74102

Attorney for
Amoco Production Company

Dated at Tulsa, Oklahoma
November 10, 1971

[14,038]

Order Denying Application for Rehearing

[14,038]

[Caption Omitted]

ORDER DENYING APPLICATION FOR REHEARING

(Issued December 10, 1971)

Amoco Production Company (Amoco) filed an application for rehearing on November 12, 1971, with respect to the Commission's letter order issued October 13, 1971, accepting increased rate supplements to the rate schedules designated in the caption pertaining to jurisdictional sales in the Southern Louisiana Area. Supplement No. 18 was filed on August 6, 1971, and made effective as of November 4, 1971.* Supplement No. 33 was filed on September 2, 1971, and made effective as of December 1, 1971.** The effective dates

[14,039]

provided in this order are in accord with the provisions of Opinion No. 598 issued July 16, 1971, in *Area Rate Proceeding, et al.* (Southern Louisiana Area), Docket Nos. AR61-2, *et al.*, AR69-1.

In its application for rehearing Amoco contends that this Commission has no power to defer the effective date of an acceptable increase beyond the 30 day notice period provided in Section 4(d) of the Natural Gas Act.

The Commission in Opinion No. 598-A issued September 9, 1971, denied, *inter alia*, Amoco's application for

* This effective date is subject to the provisions of Order No. 437-A.

** By subsequent letter order the effective date for this filing was changed to November 14, 1971.

rehearing of Opinion No. 598 with respect to the same issue it seeks to raise here regarding the proper effective date for an acceptable increase. A number of petitions for judicial review of that case have been filed. The first petition was filed in the United States Court of Appeals for the Fifth Circuit in *Placid Oil Company, et al.* v. *F.P.C.*, CA 5, No. 71-2761. Consequently, there is no need to discuss this matter here. Any question as to the validity of the Commission's action will be decided upon judicial review of that case.

Amoco's application for rehearing presents no new facts or principles of law which were not fully considered by the Commission in its October 13 order, or which having now been considered, warrant any modication of that order.

The Commission orders:

The application for rehearing filed by Amoco on November 12, 1971, is denied.

By the Commission.

KENNETH F. PLUMB
Secretary

[SEAL]

[14,040]

Amoco Production Co. Letter

[14,040]

[Received Dec. 20, 10:17 a.m., '71 FPC]

STANDARD OIL COMPANY (Indiana)
Amoco Building
P.O. Box 591
Tulsa, Oklahoma 74102

Wm. H. Emerson
Attorney

Gas Corres.

Hon. Kenneth F. Plumb
Secretary
Federal Power Commission
441 G Street, N. W.
Washington, D. C. 20426

December 16, 1971

Dear Sir:

Subject: Supplement No. 18 to Amoco Production Company FPC Gas Rate Schedule No. 160 and Supplement No. 33 to Amoco Production Company FPC Gas Rate Schedule No. 190

Order Denying Application for Rehearing issued December 10, 1971, contains the following footnote on Page 1 thereof:

"**By subsequent letter order the effective date for this filing was changed to November 14, 1971."

Please furnish Amoco Production Company with a copy of the Letter Order to which such footnote refers.

Yours truly,

/s/ Wm. H. Emerson

WHE:ljf

cc: Carroll L. Gilliam, Esq.
Grove, Jaskiewicz and Gilliam
Suite 501, 1730 M Street, N. W.
Washington, D. C. 20036

FPC Letter Order Issued December 17, 1971

[14,041]

FEDERAL POWER COMMISSION
Washington, D. C. 20426

In Reply Refer To:
BNG-IP/GC

Dec. 17, 1971

Amoco Production Company
P. O. Box 50879
New Orleans, Louisiana 70150

Attention: James A. Barton, III, Esq.

Gentlemen:

The rate schedules and/or supplements listed herein have been accepted for filing to be effective as of the dates shown.

In the event that any of the documents comprising the listed rate schedules and/or supplements contain provisions for future automatic adjustments in rates and charges, your attention is directed to the fact that such provisions, when invoked to change the effective rates and charges, will constitute a change in such rates and charges within the meaning of Section 4(d) of the Natural Gas Act and Section 154.94 of the Commission's Regulations under such Act. Any such changes should be filed with the Commission not more than 90 days nor less than 30 days prior to the proposed effective date thereof.

This acceptance for filing does not constitute authorization under Section 7 of the Natural Gas Act; nor shall it be construed as constituting approval of any rate or provisions contained in the rate filing; nor shall

such acceptance be deemed as recognition of any claimed contractual right or obligation associated therewith: and such acceptance is without prujudice to any findings or orders which have been or may hereafter be made by the Commission in any proceeding now pending or hereafter instituted by or against your company.

In future correspondence concerning the listed rate schedules and/or supplements, please refer to the FPC Gas Rate Schedule designation furnished you herewith, including the name of the independent producer and the rate schedule and supplement numbers.

[14,042]

In view of all the facts and circumstances in this case, the Commission's action herein is consistent with the Economic Stabilization Act of 1970, as amended, and regulations existing thereunder.

Very truly yours,

KENNETH F. PLUMB
Secretary

FPC Letter Order Issued December 17, 1971

cc: Columbia Gas Transmission Corporation
P. O. Box 1350
Houston, Texas 77001

Rate Schedule Designation
Amoco Production Company
(Operator), et al.

Description of Document	Date of Letter of Transmittal	FPC Gas Rate Schedule No.	Supplement No.	Effective Date
Not. of Change [2]	10-15-71	173	47	12-22-71*
Not. of change [3]	8-31-71	190	33	11-14-71*[1]

[1] Previously accepted with an effective date of 12-1-71.

[2] Includes documents required by Opinion No. 567 and applicable to the D-1 Sand Reservoir.

[3] Includes documents required by Opinion No. 567 and applicable to the Marginulina Howei Sand Reservoir.

* Sixty-five days from date of filing pursuant to Section 4.3 of the UDC settlement proposal approved by the Commission in Opinion No. 598.

BNG
Smith, B.D.:nm
12-10-71

IP72-212
Control No. 166269

[14,043]

FPC Letter Dated January 7, 1971

[14,043]

FEDERAL POWER COMMISSION
Washington 20426

BNG-IP/GC
Gas Corres.
Jan. 7, 1972

Standard Oil Company (Indiana)
P. O. Box 591
Tulsa, Oklahoma 74102

Attention: Mr. William H. Emerson

Gentlemen:

Pursuant to your request by letter dated December 16, 1971, enclosed herewith is a copy of a Letter Order dated December 17, 1971, accepting for filing Supplement No. 33 to Amoco's FPC Gas Rate Schedule No. 190, effective as of November 14, 1971.

Very truly yours,

KENNETH F. PLUMB
Secretary

Enclosure No. 097800

cc: Amoco Production Company
P. O. Box 3092
Houston, Texas 77001

Carroll L. Gilliam, Esq.
Grove, Jaskiewicz and Gilliam
Suite 501, 1730 M Street, N. W.
Washington, D. C. 20036